

# **From farming to farm holidays: the evolution of agricultural education and the specialist colleges in the UK**

**Lesley Elisabeth Brook**

**Institute of Education**

**Submitted for the degree of Doctor in Education  
May 2011**

## **ABSTRACT**

### **From farming to farm holidays: the evolution of agricultural education and the specialist colleges in the UK**

The land-based sector has a unique history of specialised establishments providing education and training suitable for school children through to postgraduate students. The dominant provider has been and remains the specialist agricultural college of further education. Since the 1990s, this provision has changed substantially as a result of changes in the industry, to college governance, to educational policy, and the development of national skills policies.

This study explored the ways in which the specialist colleges have responded to change and identifies the impact this has had on students, the curriculum, and the teaching staff. The thesis begins with a history of agricultural education in the UK and a critical review of the literature on changes to the industry. A mixed-method approach was used to gather data on the ways in which colleges have evolved.

Interviews were conducted with key informants from the relevant national organisations involved in land-based education and training, and a desk survey was conducted with the 32 specialist colleges. Two colleges were selected for further research. A detailed case study of each college was developed from data collected through semi-structured interviews with key personnel, observations within the colleges, and analysis of key documents.

The findings showed there were two main drivers of change in the colleges:

- a) change within the agricultural industry; and
- b) the incorporation of colleges in 1993

This study makes an original contribution to the literature on further education in the UK in general and on agricultural education in particular. Both areas are under-researched and, to date, there has been no research on the way the specialist colleges have adapted and evolved. The thesis recommends that a professional body should be established to devise industry standards in order to enhance the professional status of the land-based industries, and improve their image and appeal to new entrants.

## **Acknowledgements**

I am indebted to my supervisor, Professor Lorna Unwin, Professor of Vocational Education at the Institute of Education, for her extraordinarily thorough, supportive, generous and kind supervision, particularly during the thesis stage of the EdD programme. Without her guidance I would not have reached this stage.

My sincere thanks are also due to the two case study colleges and the staff at each of them for participating so enthusiastically in the study. The colleges allowed me extensive access to their campuses, and their staff were open and honest with their views, and did everything possible to support and progress my work. My thanks go to all the college staff and key informants who gave up valuable time to be interviewed. The work would not have been completed without their generous help.

Thanks also to family and friends for their valued support, understanding and encouragement, and thanks also to Edexcel who made a financial contribution towards my studies.

This thesis is dedicated to my parents Barbara and Bob Brook who have always encouraged me in my passion for agriculture and agricultural education, and who have always shown unfailing interest in my career in spite of their limited personal knowledge of the sector. They instilled in me a strong work ethic and a desire for me to try to fulfil my full potential, to aim high and be happy doing this.

## **Declaration**

**I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own**

**Word count: 45,559**

## Contents

<i>Reflective statement – my EdD learning journey</i> .....	8
Glossary of abbreviations.....	14
<b>Chapter 1 Background to the thesis</b> .....	16
Introduction.....	16
<b>Chapter 2 The Evolution of Agricultural Education</b> .....	23
Introduction.....	23
The early years of agricultural education.....	23
Towards a more formal approach to agricultural education .....	26
The development of the tripartite system of agricultural education.....	29
Farm Institutes.....	30
National Colleges .....	34
Higher Education.....	36
Apprenticeships in agriculture .....	38
The impact of the Second World War and the need to grow food at home .....	40
The impact of the ‘New Vocationalism’ on agricultural education .....	43
The role of organisations linked to agriculture and education.....	47
The Royal Agricultural Society of England (RASE) .....	47
Department of Food Farming and Rural Affairs (DEFRA) .....	48
Agricultural Training Board and Lantra.....	49
National Association of Principal Agricultural Education Officers (NAPAEO) now Land-based Colleges Aspiring to Excellence (Landex) .....	51
National Farmers Union (NFU).....	53
Land-based colleges in the broader FE and skills context .....	54
<b>Chapter 3 Methodology</b> .....	58
Introduction.....	58
Rationale for the research design.....	59
Why a case study approach? .....	60
Interviews .....	61
Conducting the research .....	63
Planning the case studies.....	63
The selection of the case study colleges.....	63
Ethical considerations .....	64
Conducting the interviews .....	67
The Phases of the Study .....	68
Data collection.....	69
1. Analysis of documentation from all land-based colleges.....	70



2. Case studies .....	70
3. Semi-structured interviews with key informants.....	70
Analysis of the data collected.....	73
Desk Study data .....	74
Interview data .....	74
Validity .....	75
<b>Chapter 4 Research Findings.....</b>	<b>76</b>
Introduction.....	76
1. College desk study.....	76
The Curriculum .....	78
Land-based colleges that have merged with other institutions.....	83
Land-based subjects taught in general FECs.....	84
Learning support .....	85
Resources.....	85
The student profile.....	86
2. The case study colleges .....	88
a) College A .....	88
History and development of the college .....	88
Description of the college .....	90
b) College B .....	93
History and development of the college .....	93
Description of the college .....	96
Summary .....	98
3. Interviews with college staff and key informants.....	98
Why did the land-based colleges change?.....	99
Industry driven changes.....	100
Government driven changes .....	101
How have the colleges reacted to the need to change? .....	103
Creation of mergers and partnerships with other institutions .....	106
Curriculum changes .....	109
Conceptualising the management of change .....	110
The consequences of change .....	112
Changes in teaching and learning .....	113
Problems identified.....	116
Opportunities created.....	119
Summary .....	120
<b>Chapter 5 Discussion.....</b>	<b>122</b>
Introduction.....	122

<b>RQ1. Do the changes in agricultural education mirror those in the land-based sector it now serves? .....</b>	<b>125</b>
<b>RQ2. What drives change in agricultural education? .....</b>	<b>128</b>
<b>The effect of the agricultural sector, and the local community on LBCs – macro ...</b>	<b>128</b>
<b>Government educational policy - macro.....</b>	<b>130</b>
<b>Employer led or student led? .....</b>	<b>132</b>
<b>Regulation of the agricultural industry .....</b>	<b>133</b>
<b>Image of land-based occupations : implications for colleges .....</b>	<b>137</b>
<b>The influence and effect of the Awarding Bodies - meso .....</b>	<b>141</b>
<b>Delivering the curriculum .....</b>	<b>143</b>
<b>The people the LBCs now serve - a new student market – micro .....</b>	<b>145</b>
<b>How were the changes managed in the LBCs? .....</b>	<b>146</b>
<b>Summary .....</b>	<b>148</b>
<b><i>Chapter 6 Conclusions .....</i></b>	<b><i>150</i></b>
<b>Introduction.....</b>	<b>150</b>
<b>RQ 1. Do the changes in agricultural education mirror those in the land-based sector it now serves? .....</b>	<b>150</b>
<b>What changes are not mirrored and why not? .....</b>	<b>151</b>
<b>RQ 2. What drives change in agricultural education? .....</b>	<b>152</b>
<b>RQ 3 What changes to policy and practice should be recommended as a result of this study? .....</b>	<b>152</b>
<b>The creation of a professional body .....</b>	<b>153</b>
<b>Data .....</b>	<b>154</b>
<b>Limitations and implications of this research .....</b>	<b>154</b>
<b>Implications for my professional role .....</b>	<b>155</b>
<b>Final summary .....</b>	<b>156</b>
<b><i>References .....</i></b>	<b><i>157</i></b>
<b><i>Appendices .....</i></b>	<b><i>171</i></b>

## List of Tables and Figures

1	Table to show government reports that influenced Agricultural Education	27
2	MAF annual scholarships 1922 to 1937	31
3	National Colleges and their establishment	35
4	Establishment of university departments of Agriculture	37
5	Apprenticeships in the land-based sector	39
6	Interview schedule	71
7	Details of interviewees	72
8	Curriculum areas and frequency in descending order	79
9	Popularity of subjects	80
10	The Male/Female shift in the student population	81
11	Summary of land-based qualifications being offered by FECs	84
12	Mode of study (PT:FT ratios)	86
13	The impact of diversification and the broad range of diversification enterprises	126
14	Summary of Ofsted report results from 2004	128

## Figure

Figure 1: Model demonstrating the interrelationship between the land-based colleges and factors impinging on them from the findings .....	123
---	-----

## Appendices .....171

1. Analysis of land-based college prospectuses
2. Questions used for semi structured interviews
3. Coding framework from data analysis
4. Example of part of an interview transcript with Key Informant K5

## **Reflective statement – my EdD learning journey**

### **a) a summary and synthesis of my learning experience over the whole programme**

The EdD programme is designed for professionals in education, such as myself, who want to extend and deepen their knowledge and understanding of contemporary educational issues.

During the course I have developed a broad range of research and enquiry skills that have and will continue to contribute to my professional knowledge and practice. The skills and expertise that I have acquired have helped me to develop a greater understanding of the developments in my specialist fields of study in land-based education and Higher Education in Further Education (HE in FE), and will enable me carry out further research and investigative work in the future. I have made an original contribution to agricultural education, a much-under researched area of education by examining and analysing the changes and their causes that have occurred in the land-based colleges in England over the last twenty years and to clarify how the colleges have reacted to changes within the industries they serve.

The EdD doctoral programme has been a very appropriate vehicle for my further development, more so I think than the traditional PhD. This is because of the discipline required during the taught elements of the EdD course, for example attending regular lectures and tutorials and writing assignments to deadlines in the early part of the programme. These fitted in well with a busy full-time professional work schedule. The structure of the EdD has enabled me, through the guidance given through the taught courses to familiarise myself with current and relevant educational literature and research, and learn and improve my research skills. The applied nature of the research that I have undertaken from the perspective of an educational professional has made the course very relevant. My confidence in conducting educational research has grown enormously. Gradually and subtly the scaffolding was removed, as there was a gradual shift away from supported and guided learning in the

early years of the course to a more independent style of learning in the IFS, and especially during the thesis.

The camaraderie and community of practice developed within our EdD group has been an invaluable part of the programme for me. Knowing that several others started at the same time as myself and having similar goals, has been very supportive. That we were all following different disciplines was refreshing and reassuring. Refreshing in that it provided discussion on a variety of other topics being researched by the group members, and this in turn helped stave off a possible staleness associated with only looking at one narrow research area; and reassuring in that we were all in the same boat, especially when the going was tough! It has also provided us with critical friend status and the ability to question closely others' work from the perspective of fellow researcher but novice in their field has been very helpful. Many pertinent questions have been asked, considered and answered, resulting in more clarity in the final work for us all.

#### **b) links between the elements**

The taught elements of the work were very important for me, as they re-introduced me back into academic work after a long gap, and guided me back into reading and critiquing literature, and into an improved style of critical writing.

The taught part of the course prepared me for the research element of the EdD in several ways by:

- Exposure to relevant literature and discourses at doctoral level
- Providing guidance on research techniques
- Assisting me to evaluate the most appropriate research instruments for research in educational settings and to decide which method would best suit each set of circumstances being investigated
- Being offered guidance during regular meetings with module and personal supervisors

In each of the taught modules we were presented with a selection of readings which was very helpful. I was challenged by the literature presented to us in these modules,

and have become a more critical reader. I reflected on the content presented and its relationship to practice, trying to make links between theoretical perspectives and my own practice. Not all the readings were an 'easy read', but were intellectually provocative and gave rise to the generation of new ideas and the consolidation of others.

The first module on *Professionalism* was fascinating and achieved a number of objectives for me. It proved to me that I could re-engage with the relevant literature and write in an academic style once again. It was a marvellous insight into the concept of professionalism in education, a concept often bandied about, but analysed very little by teachers and educators at a general level.

The sections of the course on research methodology, the *Methods of Enquiry* and *Advanced Research Methods*, were crucial to investigate thoroughly the variety of research methods currently used in educational and social science research, and the reasons for their choice. They also enhanced my understanding of the interrelated nature of research methods, methodology, theoretical perspectives and epistemology. This provided an invaluable starting point in deciding the most appropriate investigative methods for my own research problem.

The module on *Post-Compulsory Education* provided an up-to-date background and insight into the issues facing Further Education (FE) at the time. We were introduced to more new ideas and issues by the IOE staff who were researching aspects of FE, and from fellow students who were current practitioners in FE.

The feedback received from all the assignments helped to identify my weaknesses in approach and areas that I could develop further. For me the taught elements of the course have contributed enormously to the development of my competence and understanding of professional enquiry and reflection, and the skills learned were essential for the research carried out for my thesis.

The benefits to me of this style of programme have been to view the complex situations of firstly HE in FE, and then the changes in land-based education, through an academic lens. It has also been important to have the time and opportunity to

unravel the underpinning issues through discussion with other professionals on the course, staff at the Institute and by reading extensively, and by developing a clearer writing style appropriate to doctoral work.

It was during the IFS and the thesis stage of the course that my learning became much more independent as all members of our cohort set out on different research paths. The IFS allowed a small but thorough research programme to be carried out using the tools acquired during the course, and this was followed by a larger research project in the thesis, building on the skills learned to date.

**c) how the programme has contributed to my professional development and knowledge**

My career has been in agricultural education and more recently in two different roles with an Awarding Body (AB). The first role was managing the development of qualifications in a wide range of land-based subjects and my current role is to provide support to a group of FE and Higher Education (HE) centres, focussing on curriculum and qualification issues across a wide range of vocational subjects.

I chose the EdD in preference to a PhD because I needed to be re-introduced to academic work after a long gap. I felt that a taught course would offer this. I chose to study aspects of education and not pure production agriculture because during my career within the land-based colleges, I had increasingly become more involved with the educational aspects of college work. For example in my last role in college as the Director of Undergraduate Studies, I became more involved with the educational and academic issues within the college and less involved with pure or applied production-agriculture research. My thesis topic has enabled me to bring the two areas of education and agriculture more closely together with a useful purpose of evaluating changes within the Land Based Colleges (LBCs) and their causes.

I selected the broad umbrella theme of 'HE in FE' as the vehicle for the assessed parts of the EdD taught course because during the late 1990s and early 2000s many general FE colleges were introducing a wider curriculum, which included more HE level programmes. When I was teaching I had serious concerns surrounding the ability of

these colleges to offer HE level courses in particular, for example Higher National Diplomas (HNDs), Higher National Certificates (HNCs) and latterly, Foundation Degrees. My experience in several colleges had been of teachers who were very skilled and experienced practically but who often had minimal formal academic qualifications themselves. How could the appropriate level of delivery be achieved? What were college managements doing to raise these thresholds in colleges? My work via the EdD assignments showed that the situation had improved since I was teaching and colleges were recruiting more appropriate staff, able to teach at a higher academic level, to match the courses being offered. Managers were beginning to address the issues surrounding offering HE in FE such as enabling staff to engage in scholarly activity, and time for staff to prepare for the higher level teaching. The assignments for the EdD allowed me scope to investigate these issues. I was reassured that on investigation the situation had vastly improved from my experiences some 10 years earlier.

Exploration of the literature led to a greater understanding of the issues surrounding HE in FE. The examination of research work that had already been carried out was really interesting and set the scene for my own investigations in this, a growing area of research, as more HE in FE is now being encouraged and carried out. Research into aspects of HE in FE enabled me to see below the surface and interview and talk to staff and obtain their insights on certain issues, and the analysis of the data helped me to derive new meanings and understandings from my research.

For the thesis, I decided to return to land-based education and to investigate some aspects of it, as this is an area of education about which very little is known and it is under-researched. Much has changed in land-based education during the last twenty years, so it seemed pertinent to investigate the kinds of changes that have occurred and the reasons for them. This meant a huge change of direction during the course after the IFS stage, but the EdD programme accommodated this well. It meant that I had to quickly become familiar with the most recent issues surrounding land-based education and the government skills policy and not lose too much time doing this.

I conclude that my thinking, understanding and reflection of key issues have developed significantly. My professional practice has thus been enhanced as I am far



more able to discuss current issues with senior managers, lecturers and teachers in Further Education Colleges (FECs) and offer logical and well informed arguments in support of the issues at stake. My current professional role is to advise and guide a large group of FECs and Higher Education Institutions (HEIs) on the options and choices of curriculum suitable for their learners. My employer has partly sponsored my studies on the basis of enabling me to develop my role at work, and become better informed and more effective in dealing with colleges and HEIs, and thus to help develop my role within the company. Access to a wider range of ideas has been encouraged during the whole EdD programme and we have been exposed to an extensive range of other experiences and interests from tutors and the other course members. I have as a result become more reflective and inquisitive especially as a reader. I feel that I am able to provide a more substantial background knowledge and a range of ideas when I visit my centres and can discuss the qualifications they are interested in, in relation to current government policy and direction and the pertinent issues that impinge on schools, colleges and HEIs.

The EdD has been a vehicle by which my clarity of thinking and academic argument has improved, and the range of research based skills that I have learned and practised has enabled me to devise a research programme, collect and analyse the data and from it to draw conclusions and make recommendations, both now and in the future.

## Glossary of abbreviations

<b>AB</b>	Awarding Body
<b>ANCA</b>	Advanced National Certificate in Agriculture
<b>ATB</b>	Agricultural Training Board
<b>BHS</b>	British Horse Society
<b>BoA</b>	Board of Agriculture
<b>BoAF</b>	Board of Agriculture and Fisheries
<b>BTEC</b>	A brand name for vocational qualifications (was Business and Technology Education Council) produced by Edexcel
<b>C&amp;G</b>	City and Guilds of London Institute
<b>CoVE</b>	Centre of Vocational Excellence
<b>CPD</b>	Continuing Professional Development
<b>CPVE</b>	Certificate of Pre-Vocational Education
<b>DES</b>	Department of Education and Science
<b>DEFRA</b>	Department for Environment and Rural Affairs
<b>FACE</b>	Farming and Countryside Education
<b>FE</b>	Further Education
<b>FEC</b>	Further Education College
<b>FEFC</b>	Further Education Funding Council
<b>FWAG</b>	Farming and Wildlife Advisory Group
<b>GCE</b>	General Certificate of Education
<b>GCSE</b>	General Certificate of Secondary Education
<b>GNVQ</b>	General National Vocational Qualification
<b>GVA</b>	Gross value Added
<b>HE</b>	Higher Education
<b>HEI</b>	Higher Education Institute
<b>HMI</b>	Her Majesty's Inspectorate
<b>HN</b>	Higher National
<b>IFL</b>	Institute for Learning
<b>Lantra</b>	Sector skills Council for the Land-based sector
<b>Landex</b>	Organisation that replaced NAPAE0 with developmental and quality remit for LBCs
<b>LB</b>	Land-based
<b>LBC</b>	Land-based colleges (including the remaining 16 specialist colleges and the 16 which have merged with another institution)
<b>LEA</b>	Local Education Authority
<b>LEAF</b>	Land and Environment and Farming
<b>LLCS</b>	Local Learning and Skills Council
<b>LSC</b>	Learning and Skills Council
<b>LSIS</b>	Learning and Skills Improvement Service
<b>MAF</b>	Ministry of Agriculture and Food
<b>MAFF</b>	Ministry of Agriculture, Fisheries and Food
<b>MSC</b>	Manpower Services Commission
<b>NAAS</b>	National Agricultural Advisory Service
<b>NAPAE0</b>	National Association of Principal Agricultural Education Officers
<b>NC</b>	National Certificate
<b>NCA</b>	National Certificate in Agriculture
<b>NCAEB</b>	National Certificate in Agriculture Examinations Board
<b>NCVQ</b>	National Council for Vocational Qualifications
<b>ND</b>	National Diploma

<b>NDA</b>	National Diploma in Agriculture
<b>NDD</b>	National Diploma in Dairying
<b>NDH</b>	National Diploma in Horticulture
<b>NDP</b>	National Diploma in Poultry
<b>NEBAHAI</b>	National Examination Board for Agriculture, Horticulture and Allied Industries
<b>NFU</b>	National Farmers Union
<b>NPTC</b>	National Proficiency Test Council
<b>NQF</b>	National Qualification Framework
<b>NSS</b>	National Standards Sampling
<b>NV</b>	New Vocationalism
<b>NVQs</b>	National Vocational Qualifications
<b>Ofqual</b>	Office of the Qualifications and Examinations Regulator
<b>QCDA</b>	Qualification and Curriculum Development Agency
<b>QCF</b>	Qualification and Credit Framework
<b>QIA</b>	Quality Improvement Agency
<b>QIS</b>	Quality Improvement Strategy
<b>QRD</b>	Quality Review and Development
<b>RASE</b>	Royal Agricultural Society of England
<b>RDA</b>	Regional Development Agencies
<b>RQ</b>	Research Question
<b>SME</b>	Small and medium sized enterprises
<b>SQA</b>	Scottish Qualification Agency
<b>SQS</b>	Sector Qualification Strategy
<b>TECs</b>	Training and Enterprise Councils
<b>TOPS</b>	Training Opportunity Schemes
<b>TVEI</b>	Technical and Vocational Education Initiative
<b>UKCES</b>	UK Commission for Employment and Skills
<b>VetNetLLN</b>	National Lifelong Learning network for Veterinary and Allied Professionals
<b>WP</b>	Working Pupil
<b>WW1</b>	World War 1
<b>WW2</b>	World War 2
<b>YOPS</b>	Youth Opportunities Scheme
<b>YTS</b>	Youth Training Scheme

## **Chapter 1 Background to the thesis**

### **Introduction**

This thesis investigates the changes that have occurred in providing agricultural education in the UK during the last twenty years. It examines the extent to which the changes mirror those within the industry, what were the drivers for change, and how the future needs of what are now termed the 'land-based industries' will be catered for. Recommendations for policy and practice are presented at the end of the thesis. Despite its long history in the UK and its important contribution to the economy and to education and training, there has been surprisingly little research on this specialist area. The aim of this thesis, therefore, was to create new knowledge and an improved understanding of the changes within the land-based sector and to provide evidence as to how the land-based colleges have responded to these.

Agriculture, and to some extent horticulture, as defined in the 1947 Agriculture Act (cited in 1947: 9), have been served by specialised colleges providing education and training for the sector suitable for school leavers through to postgraduate students. This complete provision has been available for about 100 years in colleges and longer in universities. Prior to the end of the 19th century, there was little formal agricultural education for those working on farms. A three-tier system comprising Farm Institutes (FI), National Colleges and departments of agriculture in universities was then developed, but the architecture of land-based education has continued to evolve. These developments are discussed in the next chapter.

Agriculture is a significant part of the UK economy. The gross value added (GVA) of agriculture and the food processing industry is 6.5% and productivity in agriculture has risen steadily since the 1970s, the sector becoming more efficient, producing more and with less inputs, especially labour. There are approximately 150,000 agricultural businesses in the UK sector, employing more than 665,000 people, of which 531,000 are on farms and the remainder in agricultural contracting (Lantra et al., 2010). In recent years farm incomes have been maintained by diversification.

The workforce has several distinct characteristics. It is dominated by males (81% of the workforce), with full-time staff accounting for 83% of total employment, and high levels of casual and seasonal employment. The workforce is ageing:

- 28% are over 55 years and the average age of the workforce is 44
  - Key decision makers, the farmers, are on average 58 years of age
- (Lantra et al., 2010)

Workers are often highly experienced and can perform a wide range of skilled tasks such as driving a combine harvester, artificially inseminating livestock, and helping animals give birth, but most lack formal qualifications: 25% have no qualifications, 59% have qualifications at level 2, but only 17% have qualifications at level 4 (Lantra et al., 2010).

It is very likely that the agricultural industry will continue to change over the next decade or so. Currently, the UK imports about 40% of its food and there are moves to try to reduce this by encouraging consumers towards the use of locally produced food, to reduce the so-called food miles. This is in the wake of predictions of a drier, hotter, climate which will reduce yields of crop varieties that are grown at the present time in our temperate climate. Consequently it is important to consider how farmers and farm workers will be trained in the new technologies and how best to utilise on-farm resources most effectively to cope with these predicted changes.

My professional interest in the topic has been to try and identify the changes and trends in agricultural education. This is in order to be able to inform the decision makers, of these changes and their potential implications, to help devise an AB<sup>1</sup> strategy that could help accommodate the findings and support the LBCs in the 'new world' that they are now in.

---

<sup>1</sup> The UK is unique in having, a number of ABs. They have developed since the 19<sup>th</sup> century when the City and Guilds of London Institute was established to award vocational qualifications. There are now many ABs covering both vocational and general education. They develop qualifications according to strict government devised parameters. Colleges, private training providers, and schools then access funding to provide those qualifications approved by government for their students. ABs take different forms: some are charities or not-for-profit organisations whilst some are private companies.

After leaving an urban girls' grammar school with science A levels, and coming from a non-farming family, I spent a year or so on a farm completing my pre-college practical experience in Devon. This was prior to fulfilling an ambition held since I was twelve years old of studying general agriculture at a national agricultural college. This was followed by a post-graduate research degree in animal production pursuing my passion for sheep breeding. I then decided to launch my teaching career in agriculture, especially animal production, at FI/County College level as I was interested in teaching young people who were planning to enter farming or the allied industries.

Credibility as a teacher in the eyes of students in a County College was gained by being able to demonstrate sound practical skills, which I had learned and practised on the farm, but had no formal qualifications in. This was especially the case for a female teacher. From the college perspective, a good teacher was one who could teach and manage classes of often boisterous (mainly male) students and enable them to achieve.

My teaching career was spent teaching and carrying out some small-scale, farm-based research in five agricultural colleges across the UK. This work included teaching and assessing students, administration, curriculum development, student and staff recruitment and juggling and managing college resources. The colleges in which I worked over a period of twenty years offered mainly courses in agriculture and horticulture to satisfy a need that had been established over many years. Latterly, student numbers on courses in agriculture started to decline and other subjects were introduced, for example equine and animal care. This was to maintain student numbers and thus college viability. At each college where I had been closely involved in college management, the remit was to ensure that each college remained viable and met the needs of the local community in which it was situated. A close relationship existed, and still does to some extent, between the original group of FI (later known as County Colleges and now as LBCs) who formed their own support networks and community of practice for the sector.

As a former agricultural college student myself, and also a teacher in agricultural colleges, I was struck by the mono-technic nature of the colleges, and the narrowness

of the curriculum being offered compared to the situation in the local FEC or polytechnic. During the last twenty years, these agricultural colleges have changed enormously and the curriculum has become more diverse. This aspect of change was of great interest: why had the colleges changed and what had driven the changes?

My current professional role is as a regional Curriculum Development Manager for a large AB since late 1999. When I joined the AB, my work involved the development and project management of the first version of the UK's National Qualification Framework (NQF) suite of land-based qualifications for use in the LBCs, and which continue to offer qualifications in land-based subjects. Until 1999, LBCs had been able to develop centre-devised qualifications which were tailored to their local needs. The qualifications were submitted to the AB for accreditation before use was permitted. Accreditation also meant that the college-devised qualifications were publically funded for use in the LBCs. The introduction of the NQF tended to hamper the ability of the LBCs to adapt to local needs as college-devised qualifications were no longer allowed. The NQF qualifications covered a range of land-based subjects, for example, equine management, animal care, forestry, fish management, agriculture and land-based technology, so it was my role to recruit teachers to act as unit writers from within the LBCs. These teachers needed to have the specific sector skills and the ability to help devise qualification structures and write appropriate units to populate the structures. It was necessary to make the qualifications as flexible as possible to accommodate regional variations within one qualification. For example, the qualifications had to contain sufficient units for students studying arable farming in East Anglia and livestock farming in the West of England, to make appropriate unit selections. It was also necessary to consider progression routes for students moving up through the qualification levels from say level 2 to level 3 and beyond.

As registrations for all qualifications in the LBCs fell during the 1980s, it became necessary for the group of ABs offering LB qualifications to rationalise the overall provision of LB qualifications. This was in order to reduce the number of economically non-viable qualifications which tended to have low and decreasing numbers of students registered on each qualification. This was done as a voluntary arrangement between the ABs during 2001. It was agreed in principle, that City and Guilds (C&G), Lantra Awards, Scottish Qualification Authority (SQA) and National

Proficiency Test Council (NPTC) would become the main ABs for competence and skills-based qualifications as this was historically their area of expertise, and Edexcel for the vocationally-related qualifications in the land-based sectors, as Edexcel had a good reputation offering BTEC qualifications, and less so for competence-based qualifications in this sector. This was a business decision based on student registrations to date and AB expertise.

Joining an AB ten years ago as national qualification developer for the land-based subjects was a turning point in my career. I was not only able to further utilise my teaching and other experiences from a number of land-based colleges, but it was an opportunity to become more involved in the macro curriculum arrangements for most of the land-based colleges and to have an overview of, and contribute to, the national picture as it related to these very specialist colleges.

It became apparent that the colleges were undergoing a revolution and that their curriculum needs were changing dramatically probably in response to the downturn in the agricultural industry. There was a strong need to widen their client base and serve a wider range of people, usually within their own local and often rural community in order to remain viable. This research has been prompted by this complex and interesting situation. My study aimed to find out whether or not the changes in colleges have mirrored the changes in the industry, together with the need to investigate more fully the reasons for these changes.

A recent Ofsted (2008) report confirmed that LBCs have made a considerable effort to work with their industries to provide external commercial education and training opportunities locally. The report also noted that LBCs collaborate very well with stakeholders in the LB sector and with allied industries. A number of Centres of Vocational Excellence (CoVEs)<sup>2</sup> are well established in the LB sector providing programmes that are relevant together with strong collaboration with industry. LBCs have worked hard to keep pace with industry, for example in food technology and veterinary nursing, and play an active part in hosting events such as conferences and dissemination events, farm demonstrations, business clubs, riding events and shows.

---

<sup>2</sup> Centre of Vocational Excellence were established by David Blunkett, former Secretary for State for Education and Skills, in November 2000, to recognise expertise and experience in FECs and help make them more responsive to employer needs and economic challenges (Escolme 2002)



This kind of collaboration has enabled some colleges to attract commercial funding to help develop their specialised teaching and learning resources.

LBCs have tended to opt for one of three routes as possible solutions where their viability was under threat. Some colleges (16) have been able to remain independent and grow, some have merged with their local FEC or HEI (16), and a few (8) have been forced to close as they were too small and consequently unable to remain financially viable in the current economic climate.

This thesis is set within the broader context of education, training and skills policy in the UK, and has a particular emphasis on developments in England<sup>3</sup>. For over 30 years, UK governments have made improving skills a core priority as part of their economic recovery plans. The importance of this was emphasised by the commissioning of the Leitch Review of Skills (2006) by the previous Labour government, which claimed that unless as a country we took action to raise skill levels we would fall behind other major economic powers. Tough targets were proposed to raise skills and thus economic performance by 2020. The UK Commission for Employment and Skills published its first annual audit on progress on the Leitch targets (UKCES, 2010) and concluded that the UK's international position is unlikely to improve by 2020, let alone become world class as progress has been slower than predicted. In addition, the highly complex skills landscape could further compromise this goal. There have been several critiques of the claim that raising skill levels will lead to economic growth (see, *inter alia* Keep, 2007; Wolf, 2007) and they will be discussed in the next chapter. The important point to make here is that the land-based sector and the providers and land-based education and training have had to respond over the years to the attempts by various governments to improve the UK economy. This has meant that, just like the rest of the post-compulsory education and training sector, land-based colleges have clearly been affected by three decades of constant interference by policymakers. In his critique of an endless stream of new initiatives, funding changes, and alterations to the system architecture, Keep (2006) used the pertinent and colourful analogy of policymakers

---

<sup>3</sup> Education and training policies differ across the UK due to the fact that Scotland has always had its own independent education system and the devolution of powers to Wales and Northern Ireland now means that they too can develop different policies to England. See Hodgson et al (2011) for a discussion of the impact of devolution on post-compulsory education and lifelong learning.

‘playing with the biggest train set in the world’. This thesis will argue, however, that despite having to work within such a turbulent policy context, the land-based colleges have actually taken most notice of what their ‘customers’ have demanded. By listening to land-based employers, potential students, and local communities, the colleges have survived and (to varying degrees) prospered.

In the next chapter, I will examine the history of agricultural education to further set the scene for the research. This will be followed by chapters on the research methodology, the findings, discussion of the findings and the conclusions reached.

## **Chapter 2 The Evolution of Agricultural Education**

### **Introduction**

This chapter draws on a range of sources to consider the historical development of agricultural education and the organisations that are linked to training and education in the land-based sector. This follows the guidance given by Wodak and Meyer (2009: 9) of carefully choosing a particular and relevant source of literature to give appropriate background support to the research.

A peculiarity of agriculture as an occupational area, and one which has big implications for agricultural education, is that qualifications are not required by those who farm. Farms are acquired, as the old adage goes, by ‘parsimony, patrimony or matrimony’ none of which require qualifications.

### **The early years of agricultural education**

The land-based sector has a unique position in FE across the UK where agriculture and horticulture have been taught mainly in specialised colleges, most of which have their own commercial college farm and/or horticultural units. One of the earliest official references to agricultural education, in the form of apprenticeship, can be found in the 1563 Statute of Artificers, explaining that landlords were being given special facilities for obtaining labour and compulsory service extracted from all artificers and labourers during harvest, while:

...writs of capics<sup>4</sup> could be issued by justices and bailiffs against apprentices and servants deserting their masters (cited in Woodward, 1980, p. 40)

Other than apprenticeship (discussed later in this chapter) and prior to any formal agricultural education being available, it is only possible to speculate how skills and knowledge were passed on from the experienced to the less experienced during the 16<sup>th</sup> and 17<sup>th</sup> centuries. One way to look back into the past is through visits to communities such as the Amish of Pennsylvania who follow a simple lifestyle, and farm in traditional ways (Hostetler, 1993), as I observed first-hand during a visit to

---

<sup>4</sup> a writ that prevents the apprentices from deserting their masters

Pennsylvania in 2007. I saw families tending crops and animals using methods that were commonly used in Britain during the 16<sup>th</sup> and 17<sup>th</sup> centuries. They pass on skills from (usually) father to son using an apprentice-type model that echoes the 'community of practice' concept described by Lave and Wenger (1991): with the younger family members learning crafts and skills from older more experienced people. Daughters tend to be employed doing indoor domestic work so farm work is something of a male preserve.

A formal, college-based, agricultural education designed to replace the more traditional apprenticing of farmers' sons to other farmers appears to have been suggested as early as the 17<sup>th</sup> century. Fussell (1975) in his history of agricultural education researched that Samuel Hartlib (1615) in his book : *Essay for the Advancement of Husbandry Learning and Proposition for Erecting a College of Husbandry*, proposed a college for farmers' sons, not hired workers, and Abraham Cowley (1664 as cited by Fussell 1975), in an essay, *Of Agriculture*, proposed that: '...one college in each University should be erected and appropriated to this Study' (Cowley: cited by Fussell, 1975).

Other advocates of formal training and education were voicing their ideas during the 17<sup>th</sup> century and early 18<sup>th</sup> century. One of them, Charles Daubeney, Professor of Chemistry at Oxford and Sibthorpian Chair of Rural Economy, proposed seminaries for farmers' sons to impart theoretical as well as practical knowledge adapted to their future calling (Mingay, 1990; Sheppy, 2007 in Fussell 1975). Lord Molesworth, in his *Consideration for promoting Agriculture* in 1723 suggested schools of husbandry be established in every county (cited in Mingay, 1990).

In 1807, John Loudon persuaded his father to join with him in renting Wood Hall near London, where their farming operations were so successful that he wrote a pamphlet entitled, *An Immediate and Effectual Mode of Raising the Rental of the Landed Property of England, &c., by a Scotch Farmer, now farming in Middlesex* (Loudon, 1807 as cited in Fussell 1975). This work attracted the attention of a General George Stratton, a businessman who had made his fortune in the East India Company, and who persuaded Loudon to farm his property, Tew Park, in Oxfordshire. On moving to this new locality, Loudon did not content himself with reaping the fruits of

his new farming systems, but anxious that others should share in the benefit, he established a small academy or college of agriculture on the estate, probably called Tew Park Academy, where young men were instructed in the theory of farming, and the best modes of cultivating the soil. This was probably the first agricultural college where two classes were run, one for gentry and one for farm workers. Loudon was keen to diffuse this knowledge as widely as possible, so he published another pamphlet in 1809, entitled, *The Utility of Agricultural Knowledge to the Sons of the Landed Proprietors of Great Britain, &c., by a Scotch Farmer and Land-Agent* (Loudon, 1809 as cited in Fussell 1975).

There were no major developments in agricultural education until the agriculture industry developed a more secure scientific base enabling decisions about animal and crop husbandry to be made which were backed by scientific evidence. The formation of the Royal Agricultural Society for England (RASE) in 1840 supported this with its motto *Practice with Science*. The RASE's Royal Charter sets out several objectives, which include promoting and improving the science, technology, art and practice of agriculture, forestry, horticulture, kindred activities and the husbandry of livestock (including horses) and land.

In 1844, shortly after the establishment of the RASE, Earl Bathurst gave a 400 acre farm at Cirencester for the establishment of the Royal Agricultural College. This coincided with the improved scientific base for agriculture and the threatened repeal of the Corn Laws<sup>5</sup>, both of which were forcing farmers to use scientific principles to improve their productivity. Another two colleges were established around this date, including one at Hoddesdon in Hertfordshire, but neither survived (Fussell, 1975). All three colleges were intended for farmers' sons. The attitude of employers at this time was generally against 'schooling' because of its effect on mobility, encouraging farm workers to seek better paid work in the towns, and farmers at the time would not want to have seen any extension in the provision of education for the mass of the rural population. For example a Somerset farmer, in evidence to a House of Commons Select Committee, said of his fellow farmer employers:

---

<sup>5</sup> The controversial Corn Laws introduced import tariffs designed to discourage the import of cheaper foodstuffs from abroad and thus support UK agriculture; repeal meant a move towards free trade.

...they do not see the need of what they call education; it raises a man above his work, he thinks himself fit for higher employment, and goes away to the towns (Dunlop, 1913:130)

Some farm schools were started by philanthropic farmers and clergymen during the mid-nineteenth century: for example a school was started in Herefordshire where twenty boys aged between nine and fifteen years: 'learnt to be good and skilled labourers and received academic instruction at night' (Fussell, 1975:54). Another at Warren Farm, Ridgmont in Bedfordshire, was set up in 1896, to provide training for boys in agriculture. Later girls were allowed to attend, (ibid, 1975), but further details of this venture are uncertain.

### **Towards a more formal approach to agricultural education**

Financial support from the government for technical education from 1858 was distributed via the Science and Art Department of the Board of Trade in South Kensington, London, and was directed towards teachers in Mechanics Institutes and included providing evening lectures for farmers. It was the Technical Instruction Act (1889) and the windfall of the *Whisky Money*<sup>6</sup>(1890) which provided the first substantial financial investment for technical education, and this included some monies for agricultural classes. Agricultural education was the official responsibility of the Board of Agriculture (BoA) from 1889. The first BoA existed from 1793 to 1822. This Board was dissolved when it ran out of funds in 1822 (Foreman, 1989), and was re-established in 1889 to oversee all the functions relating to agriculture, and later fisheries, which included agricultural education and research. Great emphasis was laid on the importance of the BoA carrying out an agricultural survey of each county, inquiring into the means of improvement of land. This proved to be too ambitious a task and only a few surveys were carried out and very little was documented before the Board ceased operation in 1919. The responsibility for agricultural education was then passed to the Ministry of Agriculture and Food (MAF) which represented the interests of agriculture at cabinet level (Foreman, 1989), and subsequently became the Ministry of Agriculture, Fisheries and Food

---

<sup>6</sup> Extra duties imposed on spirits and beer which was used to fund technical education, including 10% which was used for agricultural instruction

(MAFF), until 1959 when the responsibility was transferred to the Ministry of Education (MOE and DES, 1974).

As was noted earlier, the development of agricultural education went hand in hand with developments in agricultural science and farming techniques. From the 1870s onwards, national attention was being given to the industry and its skill needs through a series of inquiries and reports.

The most notable of the reports are summarised in table 1:

**Table 1: Government reports that influenced Agricultural Education**

<b>Report/Act title</b>	<b>Date</b>	<b>Focus</b>	<b>Prepared by</b>
Agricultural Children's Act	1873	Employment of children	Board of Agriculture
Paget Report	1887	A system for agricultural education	Board of Agriculture
Technical Instruction Act	1889	Technical Education across all sectors	Board of Agriculture
Board of Agriculture Act	1889	Creation of Department of State which later became MAF	Board of Agriculture
Reay Report	1908	Farm Institutes	Board of Agriculture and Fisheries
Luxmoore Report	1945	Evaluation of Agricultural education	MAF
Loveday Report	1946	Agricultural education in HE	MAF
Agriculture Act	1947	Food production post-WW2	MAF
Loveday Reports	1947 & 1949	Farm Institutes	MAFF
Carrington Report	1953	Link between education and extension work	MAFF
De La Warr Report	1958	Farm Institutes	MAFF and MOE
Lampard Vachell Reports	1960 & 1961	Is De La Warr report being implemented?	MAFF and MOE
Pilkington Report	1969	Introduction of the OND/HND	DES
Hudson Report	1973	Review of Ag. education	DES

The significance of these reports and their impact and consequences will now be discussed.

The exploitation of child labour in factories had been brought under control by the Factory Acts of 1835 and 1847, inspired by the work of Lord Shaftsbury. However, young children from about six years of age were often required to work as part of gangs of farm labourers. The hours were long and the work conditions very variable, sometimes the gangs had to walk large distances and the work was heavy (Orwin and Whetham, 1971). There were also many children working on the land from a very young age starting as bird-scarers in the crop fields and progressing onto leading horses and cleaning turnips. These children received very little schooling. It was the Agricultural Children's Act of 1873 that directed that no child under eight could be employed in agriculture, but it was soon out of date, as schooling became compulsory in 1876 for children up to fourteen years of age, or until they had passed the school leaving certificate. Farmers opposed this as they wanted cheap boy labour and some of the labourers grudged the payments they had to make for it, as education was not free until 1891. The rising generation of farm labourers' children would at least be literate, but the peculiar provision of the act meant that the brightest children left school first.

The agricultural surveys that were carried out in the late 1800s noted that in spite of two decades of scientific progress, this work was not being extended to farms (Richards, 1994). Farmers seemed to be suspicious of change and reluctant to employ new methods which were being devised to help them increase crop and livestock yields and hence improve incomes. Attitudes towards and interest in agricultural education were poor. Sir Richard Paget (1887) was appointed to chair a Departmental Committee on Agricultural and Dairy Schools to '...inquire into what Agricultural and Dairy schools may properly receive Governments Grants' (p5). In the process of this enquiry the general state of all Agricultural education was also investigated. The report that was prepared by this committee (Paget Report 1887) concluded that agricultural production was limited by the lack of knowledge of those working on farms and that there was insufficient provision for agricultural teaching, and a new system of agricultural education urgently needed to be created. The Committee said that this provision should, '...be made for labourers, tenant farmers and others' (ibid



p5), but the proposals were fairly general. The Paget Committee (1887) also concluded that agricultural instruction to date was too theoretical and recommended a practical approach to teaching and that the supervision of a new system for agricultural education should be in the hands of the Department of Agriculture, assisted by a Committee or BoA as agriculture derives: ‘...comparatively speaking, but small advantage from the Science and Art Department’ (Paget, 1887: 9). Minimal documentary evidence is available to show the results of the Paget Committee’s recommendations, but the fact that agricultural education was being evaluated again less than twenty years later by the Reay Commission in 1908 suggests that very little progress had been made during this time.

### **The development of the tripartite system of agricultural education**

By the early 1950s, Agricultural education was being delivered in three types of establishment reflecting different levels of courses for different groups of students, namely FI, National Colleges and universities. The evolution of this system will now be described.

The first major report, the Reay report (1908), was commissioned to evaluate the provision of agricultural education was under the chairmanship of Donald James Mackay, 11<sup>th</sup> Baron Reay, to make recommendations for the future. The report’s authors gathered evidence from 113 witnesses, many of whom represented education including the universities (18), colleges (8), and several witnesses (16) were farmers. It was noted that the attitudes of farmers towards education had improved significantly from a position of indifference to one where farmers were showing an active interest in the work of many of the institutions and that HE was growing well. These improved attitudes towards education had been brought about by the research work of RASE and the universities, resulting in practical ways by which farmers could improve their farming methods and improve their incomes. The Reay report’s findings also showed that facilities for agricultural instruction for farm workers were ‘...unorganised, unsystematic and wholly inadequate’. It recommended the establishment of FIs in each county to provide ‘...winter Agricultural Schools’ for lads of 17 to 20 who have already gained some practical acquaintance of agriculture’ (Reay 1908: 17). However, there was also some evidence in the report of farmers’

attitudes towards the evening lectures set up for farmers to attend in order to be technically updated were poorly received as they lacked practical application (Mingay, 1990). The Reay report triggered the first real development of this specialist area of education, and promoted the emergence of the present day system of non-advanced agricultural education comprising the FIs.

### **Farm Institutes**

The need for self-sufficiency in home produced food after the experiences of wartime shortages during World War 1 provided the impetus for agricultural reconstruction including active involvement by the state in agricultural education (Thompson, 2006). The depressed condition of much of British agriculture made it important to promote educational opportunities for young, unqualified persons in rural areas to prevent further migration to the towns, and also to help kick start the rural economy. Building on the work of the pre-war Development Committee, £2 million was allocated by the 1918 Agricultural Policy Sub-Committee of the Reconstruction Committee specifically for the expansion of agricultural research and education (Floud, 1927). In many cases this enabled Local Education Authorities (LEAs) to purchase land and/or accommodation where an FI could be established. An additional sum of £1 million was also allocated and this included money for the provision of scholarships and bursaries for farmers' children. In 1926 this was expanded to also include the children of agricultural labourers. As agricultural education expanded, this resulted in a much closer partnership between local and central government, because counties could receive up to two thirds of the operating costs of their provision, and four fifths of the salaries of those in the county who organised agricultural education (MAF, 1919). In planning for this expansion, LEAs were required to submit comprehensive plans for their bespoke local agricultural education, which had to include the establishment and maintenance of an FI or similar institution.

The Right Honourable Lord Justice Fairfax Luxmoore, a landowner, was appointed chairman of the Luxmoore committee (MAF, 1945) which was established to evaluate agricultural education, and make recommendations for improving and developing it after the war. It was concerned with the apparent overlap of provision between the FIs and colleges, and colleges and universities and was keen to maintain

the three tier system. Despite the recommendation of the Reay report for a FI in each county there were only 5 FIs by 1914, which had grown to 13 in 1939. The Luxmoore Committee concluded that this was as a result of the apathy of the County Councils where industrial and not rural industries predominated, and an unwillingness by rural counties to incur the expense. Burton (1943) in his book, *Education of a countryman*, concluded that:

One reason why the Farm Institutes are not full is fundamental. An uneducated farmhand will work at manual labour for a pittance. Educate him, and he begins to wonder why he was ever such a fool as to work so hard for so little. The general level of remuneration on the farm in normal times is too low, and the prospect of better paid employment too slight, to encourage the best brains to seek opportunities for further study or research.  
(Burton, 1943: 175)

Rural students, both male and female, could apply for one of the 140 annual scholarships that were awarded through MAF educational and research scheme, as shown in Table 2 below. The inclusion of females reflected the interest that girls were now showing in dairying and poultry keeping following WW1 and the rise of the Women's Land Army (Kramer, 2008).

**Table 2: MAF annual scholarships awarded during the period 1922 to 1937**

Scholarship holders	Number
Sons or daughters of agricultural workmen	533
Sons or daughters of working farm bailiffs	168
Sons or daughters of smallholders	465
Sons or daughters of other rural workers	299
Qualified on their own account as <i>bona fide</i> workers in agriculture	528
Total	1,993

Source: Journal of the Ministry of Agriculture (1938: 248)

Over 80% of scholarship holders enrolled at the new FIs and, of these, almost 40% returned to farming or smallholdings after graduation. An additional 15% were employed in a supervisory capacity in farms or dairies, and a further 8% became

teachers, researchers or advisors in agriculture. Although these figures represent a small proportion of the agricultural population, these opportunities had not been available previously and it was clear that some rural families were prepared to support their children in FE, especially in agriculture, dairying, market gardening and poultry production (MAF, 1938). Overall total expenditure for agricultural education amounted to £213,602 in 1919-1920 and by 1938-1939 this had risen to £606,385 according to the Luxmoore report (MAF, 1945). Luxmoore confirmed that the number of FIs should be increased to at least one per county and that each should have a farm attached.

The FIs were designed to attract local students, school leavers aged 16 or older, and were often based on country estates that had been purchased by LEAs during the post-first world war glut of cheap land sales. The students were training to work on a farm or estate as manual farm workers. The FI courses, mainly in agriculture, but some were available in dairying and horticulture, were of a practical nature and extended over one year, usually full-time, nearly always requiring a year of pre-college practical work as recommended in the De La Warr review (MAFF, 1958).

The Right Honourable Earl De La Warr was appointed to chair a committee which was set up in 1957 (MAFF, 1958) to review FE for agriculture, as provided by local authorities and make recommendations at a time when there was still a great need for expansion of agricultural education following WW2. The conclusions of this committee were that standards in FIs should be raised, that courses should have academic entry requirements, and there should be less emphasis on practical training to help place a higher value on training. The committee also found that some of the institutes were still finding it difficult to recruit sufficient good quality students onto their full-time residential courses. This was probably because these courses were geared towards young prospective farm workers who were unfamiliar with the concept of an education, never mind a residential one. The report recommended that LEAs should be proactive in supporting students who wanted to learn about agriculture by providing grants, and that the FIs should broaden their curriculum and offer more specialist short courses.

Courses were often delivered during the winter months to make use of slacker times in the farming calendar, and successful students were awarded college certificates. In

1957, C&G became responsible for awarding these college certificates, taking over the responsibility for a scheme run by the National Certificate in Agriculture Examinations Board (NCAEB). The qualifications, which were originally college certificates, thus became national awards, as in, for example, the National Certificate in Agriculture (NCA). This ensured a more consistent approach across the country. The scheme allowed for national certificates to have local specialisms such as farm secretarial (NCFS) and horticulture (NCH) courses and created an advanced certificate in farm management (ACFM) and another for farm mechanisation (ACFMech). This enlarged remit of C&G led to a change of name for NCAEB to the National Examination Board for Agriculture, Horticulture and Allied Industries (NEBAHAI) as it now covered all the land-based qualifications.

Although the FI courses were practical in nature, students were assessed using written examinations set and marked by each FI, but moderated by NEBAHAI. Strangely no significant testing of the practical skills took place. However, there is a long tradition of work-based assessment for land-based skills organised by the NPTC that had developed in parallel to the institute courses. These tests were initially run by the Young Farmers' Clubs and some FIs embedded them into their own courses although the proficiency tests were designed to reflect adult standards of competence which some colleges felt were unsuitable for 16 to 18 year olds.

By 1958, there were 37 FIs in England compared with 13 in 1939 (an increase of 24), and their control and management was under the County Councils who also provided a County Advisory Service (the Institute Principal also being the County Agricultural Organiser). Recruiting students was not always easy and numbers were disappointing. However, student numbers had nearly trebled since 1939, from 774 in 1939 (MAFF, 1949) to over 2,000 (MAFF, 1958).

Some of the colleges were purpose built, as for example the East Sussex Farm Institute near Lewes, whilst others took over and occupied local stately homes, for example Shuttleworth College in Bedfordshire. A distinctive feature throughout the educational provision in the sector has been the residential accommodation for students (Lester, 1999). This enabled students to participate in work-related routines on the college farm, for example milking and lambing, which often take place before

9am and after 5pm. Many specialist short courses were also provided. Most developed specialisms that reflected the local agriculture, for example arable farming in East Anglia and livestock production in the west.

### **National Colleges**

These were established to provide education and training for farmers' sons and daughters at a level beyond the FI courses. They were first mentioned in the Paget Commission report in 1887, which recommended the provision and maintenance by the state of a Central Normal School of Agriculture to be built near Rugby. The Central School was designed so that it did not compete with the established private colleges of the Royal Agricultural College at Cirencester and Downton in Wiltshire, as its purpose was for teaching the much needed teachers of agriculture and dairying. It was felt that one way of improving skills and knowledge of future farm workers was to put more emphasis on the quality of teachers available in the FIs. However the demand was poor and the Central School never materialised, probably because, historically, teachers of agriculture have always seen themselves primarily as agriculturalists rather than as teachers. A small group of National Colleges emerged during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries to provide training primarily for farmers' sons, although daughters were able to enrol, together with slightly older learners, aged approximately 18 and above, see table 3 overleaf:

**Table 3: National Colleges and their establishment**

	Location	Start date	First cohort of students	History and current position
Royal Agricultural College	Gloucestershire	1845	25	First Agricultural College – privately funded
Writtle	Essex	1893	n/a	1893, now has close links to local HEI
Myerscough	Lancashire	1892	n/a	Harris Institute (then known as the Preston Institution for the Diffusion of Knowledge) in 1892. In 1894 a farm and land were purchased
Harper Adams	Shropshire	1901	6	Private bequest to start, now University College status
Studley	Warwickshire	1903	n/a	Founded by Daisy Grenville, Countess of Warwick (female only) closed 1970s
Seale Hayne	Devon	1919	15	Military Hospital during WW1, opened under bequest from Sir Charles Seale Hayne, became part of University of Plymouth; now closed to agriculture, and home of Dame Hannah Rogers Trust
Shuttleworth	Bedfordshire	1946	20	Established from family trust fund, merged with local FEC

The courses at the National Colleges were pitched at a higher level than those of the FIs and students were recruited nationally, hence their name. Students could progress from FIs to a National College but this did not often happen as farm workers did not often aspire to more advanced study.

Students usually required School Certificate qualifications as entry qualifications onto National College programmes leading to the National Diplomas in Agriculture (NDA), poultry husbandry (NDP) or dairying (NDD). These qualifications were examined by the RASE and the Royal Association of British Dairy farmers (RABDF). Often the colleges developed a specialism according to the local agricultural practice, for example dairying and milk production at Seale Hayne College in Devon. These colleges were financed directly by the BoA and were not

under the financial control of local authorities. Students were generally awarded diplomas that were validated by the Joint Board of the Royal Agricultural Society of England, the Highland Agricultural Society of Scotland and the Royal Welsh Agricultural Society for Wales (RWASW). Diplomates went into farming or achieved positions of responsibility in farm management and related industries. Nearly all courses demanded that students should complete a pre-college farm practical year. The National Colleges were confirmed as holding a position between the FIs and the universities.

### **Higher Education**

The establishment of agriculture in HE was as a result of several factors. From the early 19<sup>th</sup> century, the Highland Society in Scotland, the RASE, and the RWASW, were keen to promote new styles and systems of farming. They favoured an academic agricultural education to diffuse and communicate the new ideas and knowledge. Edinburgh University had established itself with a reputation for the teaching of medicine and science and as much of agricultural improvement during the 18<sup>th</sup> century was linked to science and chemistry, it opened one of the first Departments of Agriculture in the late 1700s. The first universities to establish Departments of Agriculture initially offered Diplomas in Agriculture and then degree courses in agriculture as they received degree awarding powers. University courses in agriculture were originally intended for the elite of rich landowners' sons and not farm workers. In the latter half of the 18<sup>th</sup> century, Chairs of Agriculture were appointed at Edinburgh (1791) and Oxford (1796) universities, thus raising the status of agriculture as a subject. Table 4 shows when departments were established:



**Table 4: Establishment of university Departments of Agriculture**

<b>Established</b>	<b>University</b>
1700s	Edinburgh
1750s	Oxford
1750s	Aberdeen
1760s	Glasgow
1888	University College of North Wales, Bangor; and Aberystwyth
1891	Leeds
1892	Durham College of Science (later King's College Newcastle)
1893	Cambridge
1894	Nottingham
1894	Reading
1894	South Eastern Agricultural College Wye

As was stated earlier, the Paget Commission (1887) favoured the establishment of several centres of instruction, including university departments to represent the varied nature of agriculture. Arthur Brooke-Hunt, the Board of Agriculture's Inspector of Education, summoned together seven of the most prominent individuals in university departments and formed the Agricultural Education Association. This was significant in that it gave a small group of educationalists the 'ear' of the BoA (Richards, 1994).

Many of the older universities have owned and still do own large amounts of agricultural land, some of which they farm themselves as the university farm, as for example at Oxford, Cambridge and Reading, and other land that they tenant farm, which generates a useful income for the university. As individual colleges of the universities own land, the total amount of land owned by each of the universities remains a closely guarded secret.

Since WW1 no further departments have been created, and currently there are no 'pure' agriculture departments remaining, as these have merged into the university biological science departments and all the National Colleges now undertake undergraduate teaching. University level courses usually involved teaching the underpinning sciences with varying emphasis on the vocational aspects, ensuring a supply of graduates for research, advisory and commercial posts who found work throughout the world.

Dr Thomas Loveday (former Vice Chancellor of Bristol University) was appointed chairman of the Loveday Committee in 1944, to evaluate the HE provision in

agriculture. The findings of the Loveday report (MAF, 1946) emphasised that 'fundamental' research should be carried out by universities and 'applied' research by research stations. They also wanted universities only to teach at degree level, to improve the quality of their teaching and thus become 'national centres of agricultural learning' and:

...each member of the teaching staff should be free to devote some part of his time to research work without which his teaching is bound to become uninspired and stereotyped (MAF, 1945: 54)

Critics doubted this narrow and elitist approach would work, and university departments chose to offer a wide variety of courses (Moore, 1971).

### **Apprenticeships in agriculture**

As mentioned earlier, apprenticeships were first suggested as a means of providing a better, more skilled workforce for agriculture in the 17<sup>th</sup> century. However, there is no evidence that apprenticeships were ever common in agriculture (Dunlop, 1913; Giles and Cowie, 1964). It was not made compulsory for the training of young people in agriculture, and copies of apprenticeship indentures which still exist are those of parish apprentices placed with farmers as 'workers' so as not to be a burden to the local rates. It is a feature of agricultural education that there has been no recent or significant history of apprenticeships in the industry. The Agricultural Apprenticeship Council, a national body, was set up in 1949 to administer and authenticate the Apprenticeship Scheme in Agriculture and to help promote the schemes and improve uptake. The scheme was revised in 1961 to include a monetary incentive of a 10% premium above the standard rates of pay on completion of training. LBCs were never enthusiastic supporters of such schemes and so problems which besieged the system included the location, timing, and provision of facilities for the taught part of the courses, (Giles and Cowie, 1964), and often the willingness of employers to provide FE for their workers was limited.

In 1994, the government started funding apprenticeships and introduced the Modern Apprenticeships (level 3). Level 2, Foundation Modern Apprenticeships were introduced in 2000. Now Lantra, the SSC have responsibility for setting up the many apprenticeship frameworks for the LB sector at levels 2 and 3.

The apprenticeship data shows that the total number of apprentices in England and Wales (all ages so 16-18, 19-24 and 24+) in frameworks associated with the land-based industries for the years from 2003/04 to 2008/09 are as follows:

**Table 5: Apprenticeships in the land-based sector**

<b>Industry</b>	<b>numbers</b>
Agriculture, Crops and Livestock	2882
Amenity Horticulture	3
Fencing	52
Trees and Timber	341
Animal Technology	12
Game and Wildlife Management	290
Production Horticulture	92
Saddlery	36
Farriery	515
Animal Care	2877
Land-based Service Engineering	1750
Equine Industry	7699
Floristry	893

Source: Data provided from research undertaken by Alison Fuller and Lorna Unwin from Statistical First Releases (2008/09)

Whilst the numbers of LB apprentices are reasonably small - in comparison to say construction - 39,956, or hairdressing - 33,284,(LSC and Experian, 2009), they do exist. Although this thesis is not about apprenticeships, what is particularly interesting is that the figures above show that the diversity of LB apprenticeship frameworks mirror the current curriculum diversity in the LBCs. This will be discussed in chapter 4 and 5 when I look at how the colleges have diversified.

A more typical entry into the sector was by getting a job on a farm and then following on-farm instruction or occasional short courses, with some attending part-time day release C&G courses or a similar provision. These courses enabled craft status to be obtained, which in turn linked to the Agricultural Wages Order entitling the craftsman to an increased level of pay above the minimum, a system which existed until July 2010 when it ceased. The process provided a work-based route into gaining a qualification, but its uptake was patchy, and still is, and varies according to geographical region. Some students followed this route during their pre-college practical year before attending college full-time to study for a year or more. This was a route that I followed myself.

## **The impact of the Second World War and the need to grow food at home**

The start of WW2 marked the end of the reliance in Britain on imported food, and a time when the farming industry was at a low ebb, so home food production became an urgent priority. Staff in the Departments of Agriculture in universities, in the FIs and National Colleges, who had not been enlisted to the armed forces, undertook advisory, training and executive duties. Many became County Executive Officers in the War Agricultural Executive Committees. During WW1 and WW2, several FIs provided basic skills training for those joining the Women's Land Army (Kramer, 2008) including milking cows and tractor driving.

The Luxmoore Committee (MAF, 1945), was established as explained earlier, to evaluate agricultural education and make recommendations for improvements when it was imperative for farms to be producing as much food as possible post-WW2 in the UK. When the Committee was convened, they stated their underlying requirements for good agricultural education should be the intellectual development of learners, a good grasp of the physical, biological and economic principles underpinning the industry and that technical efficiency be demonstrated. Despite the earlier Reay Report's (1908) recommendation that there should be an FI in every county, by the time the Luxmoore report was published, there were still only 13 FIs causing Luxmoore to state:

...the question of providing new farm institutes seems to have been allowed to sleep (MAF, 1945 p 37)

This was a major reason for commissioning this report. The committee recommended a National Council for Agricultural Education outside the Ministry of Agriculture, but under the control of the Minister, to place more emphasis and focus on education and training. Luxmoore endorsed Reay's call for an FI in every county to help address the post-war depression. Funds were allocated for this purpose, and special funding was allocated to the universities as they were recognised as having a crucial role in the research they were carrying out to help improve agricultural output:

...to ensure that such information is ultimately brought to the knowledge of those engaged in the farming industry and used by them (MAF, 1945 p 34)

A National Agricultural Advisory Service (NAAS) was also recommended and established in 1947. NAAS provided free technical advice to farmers, but was completely divorced from the education establishments in England and Wales. However, in Scotland there were close links between the colleges and the advisory service. A working party on agricultural education, under the chairmanship of Peter Carrington, (later Foreign Secretary), was established in 1951 to examine the effectiveness of working practice between the way agricultural education and NAAS worked together. The findings in the Carrington report (1953), concluded the need to strengthen and make more effective the links between the NAAS and the agricultural education service of the local authorities. The report was however, rather scornful of high ability boys training for agriculture, the inference being that only those of limited ability should be trained to enter the agricultural industry. This seemed to demonstrate a lack of awareness for, or a disregard of the considerable ability needed to manage and work a farm business, for example the capital at stake, the depth of knowledge required to use fertilisers, herbicides and feeds effectively, and the decisions to be made on the best use of resources.

It was the Loveday Committee (MAF, 1947) referred to earlier, (and endorsing the recommendations of the Luxmoore Committee) who again committed to the establishment of an FI in each county, emphasising that each institute should have its own farm. The 1947 Agriculture Act focussed on increasing food production post-WW2, reinforced Luxmoore's recommendation that that the network of specialist FIs should be strengthened so that there would be approximately one institute per county. The aim was to promote agriculture in the post-war depression period and train farm workers to farm the land and look after their animals more productively in order to prevent food shortages.

Since the Luxmoore Report (1945) and the Loveday report (1947), agriculture had progressed from an industry whose practices were based on primitive skills carried out largely by human energy, such as mucking-out buildings by hand and hand-hoeing the fields where crops were growing to remove weeds, to one where mechanisation and modern organisational methods relieved farm workers of some of the hard physical labour giving more leisure time. Government policy, supported by the Common Agricultural Policy of the European Union, during the latter 1950s to

the early 1980s was to increase food production from UK farms. This eventually resulted in surplus food production.

As referred to earlier, the De La Warr Committee's report outlined plans for training and education for agriculture where workers and farmers would need to think more and be able to use machines intelligently to save work and utilise resources in order to make a profit (MAFF, 1958). The review suggested that raising the level of the FI courses and requiring these courses to have entry qualifications would help raise the profile of the training available. The proposal was for FIs to become larger, each with a minimum of 100 students, rather than to establish more institutions. The De La Warr Committee wanted more practical training in FIs as their investigations revealed that this was getting left out of the curriculum, which had become more theoretical.

The National Advisory Council on Education for Industry and Commerce appointed Alderman B.G. Lampard-Vachell to chair the Sub-Committee (16 members) on Further Education in Agriculture (MOE, 1960; MOE, 1961), to advise and to ensure that the recommendations of the De La Warr report were being implemented. They concluded that progress was being made, FIs were increasing, and emphasised that the teaching of practical skills in the institutes was essential.

Agricultural education experienced a period of great change when the responsibility for LBCs was transferred from MAFF to the DES in 1959. The Pilkington Committee was set up to examine the range of qualifications and their relevance to agricultural practice, with Lord 'Harry' Pilkington as chairman. The Pilkington Report (DES, 1966) recommended the application of entrepreneurial criteria to agricultural education in order to keep up with recent developments in business organisation, marketing and accounting, mechanisation and the specialist needs of the ancillary industries:

Agricultural courses should be related to the structure and needs of the industry and the ultimate prospects of those who enter it (p 27)

The introduction of Ordinary National Diplomas (ONDs) and HNDs to replace the NDA and NDD to bring the sector into line with the rest of technical education was therefore proposed. The OND qualifications, which required 5 O levels for entry,

were offered by the FIs. The HND was based in the National Colleges, and required students to have specific entry requirements of one A level and to have studied another one. Both the OND and HND qualifications were sandwich courses which normally included one year mid-course practical work, and a compulsory pre-college practical year. Each course thus became a four year programme, at least two of which were spent in college.

The FIs were re-named County Colleges following this recommendation by the Pilkington Committee, 'There is no need to restrict the term 'college' to a particular group of establishments'. This move reflected the fact that funding had been and still was via the LEA.

Government policy for agriculture in the late 1970s and early 1980s was to reduce the number of farmers because the industry was over-producing food resulting in surpluses and low prices. This was achieved by persuading some farmers to retire by offering cash incentives. In her research on recruitment to agriculture, Gasson (1968) explored alternative strategies to this, namely influencing potential new entrants to the industry the majority of whom were farmers' sons. She conducted her research in an area of the Fens where family farms were very important in the local economy and where there were very few opportunities outside farming for employment. Her general conclusions were that although many farmers' children may aspire to the same type of careers as their town-bred friends, the practical difficulties of long journeys, limited available transport and perhaps the need to help out on the farm resulted in many remaining at home on the family farm, in spite of poor incomes. The research also noted that enthusiasm for attending training or day-release classes in the colleges was almost non-existent and persuading these children to move away from home would be very difficult.

### **The impact of the 'New Vocationalism' on agricultural education**

UK governments from the mid 19 century onwards have recognised that domestic industry largely relied on unskilled manual labour. The acceleration of the industrialisation process and increased competition from Europe and USA resulted in increasing demands for professional non-manual and skilled-manual workers, so the

educational system should be organised as far as possible to prepare young people for their roles as different types of employees (Haggar, 2002).

By the late 1960s and 1970s it was argued that the education system was failing the nation and that much more needed to be done to prepare students for their future working roles (see Hayward, 2004; Rees, Williamson and Winckler, 1989; Unwin, 2004). This was one of the main emphases of Labour Prime Minister James Callaghan's Ruskin College speech (Callaghan, 1976), and the Conservative governments after 1979, who responded to these concerns by developing more industry-relevant school and college courses, which were collectively encapsulated in what was called the New Vocationalism (NV).

The main policies under the 'umbrella' of NV included the expansion of training schemes for young people to improve their employability as unemployment of school leavers had increased substantially during the 1970s and more rapidly in 1980s (Huddleston and Oh, 2004). Youth Opportunity Programmes were devised by Labour from 1978, and from 1983 the Conservatives launched Youth Training Schemes (YTS), initially as one year programmes which were extended to 2 years. YTS, renamed YT, was withdrawn in 1994 (Raggatt and Williams, 1999).

In the mid 1980s Technical and Vocational Education Initiatives (TVEI) were introduced for 14 to 18 year olds; and the Certificate in Pre-Vocational Education (CPVE) introduced for 16-17 year olds as preparation for further vocational study and for whom A levels were unsuitable. Both were organised and funded centrally by the Manpower Services Commission (MSC) (Avis, 2009; Lucas, 2004). These initiatives were a composite curriculum which included key, technical and employability skills as part of the programme. They were replaced in 1993 by General National Vocational Qualifications (GNVQ), designed to develop skills and understanding in a broad range of vocational areas (DES, 1991; Yeomans, 1996). 'Applied' or 'Vocational' A levels and GCSEs replaced GNVQs in 2000 (Hodgson and Spours, 2003).

To try and simplify vocational qualifications and deliver industry-supported competence based qualifications, such as NVQs, the National Council for Vocational



Qualifications was established in 1986 (DES, 1988b). A limited number of city technical colleges were also established to continue the theme of industry-focussed education, and some schools were given specialist technology status.

There was an increased involvement of the business community in education, (Huddleston and Oh, 2004) which possibly led to an over-promotion of work-related learning aims in schools and colleges at expense of civic and moral purposes of education (Haggar, 2002; Hayward, 2004). FECs were increasingly required to be become more responsive and employer focussed, and recognise the importance of technology for industrial expansion, a trend that was reinforced by the 1988 Education Reform Act (DES, 1988a). This Act paved the way for greater powers to be assigned to colleges and their governing bodies to give them more flexibility and prepare them for the full independence they were given under the Further and Higher Education Act of 1992 (DfES, 1992) when they were granted full corporate status and they were removed from LEA control. The theme of centralisation continued when a national funding model was introduced when the LEA's role towards FECs was replaced by the Further Education Funding Council (FEFC) (DfES, 2002). This body was responsible for allocating monies, and also for the inspection of colleges. Training and Enterprise Councils (TECs) were introduced in the early 1990s to replace the MSC to help reform skills training and to identify local training and skills needs linked to business needs (Evans, 2007).

The debate about education and training continues and the new vocationalism was criticised for creating a divide between academic and vocational education (Bates et al., 1984; Gleeson, 1990; Hodgkinson, 1991; Holt, 1987; Lester, 1999). Students following vocational courses such as CPVE often felt themselves to be second class, and many schools were unable to resource these vocational subjects adequately (Haggar, 2002). These initiatives were seen as a shift of blame from government economic policy (held responsible for mass unemployment) to teachers (failing to teach industry-relevant skills) (Haggar, 2002). YTS reduced overall unemployment figures which helped to increase government popularity, the schemes were however perceived as passive, providing little training on low wages, students often being 'discarded' once they had completed. However, supporters say these programmes did provide useful training (Lester, 1999).

During the 1990s the FE sector was subjected to many changes whilst under the regime of FEFC and TECs, but it was the failure of government and FEFC to recognise the diversity, heterogeneity and complexity of the sector that has caused many problems (Evans, 2007). An accounting type mentality was used towards the sector, and decisions were politically and financially rather than educationally led (*ibid*).

FEFC and TECs were replaced by LSC and Local Learning Skills Councils (LLSC) following the *Learning and Skills Act* (DFES, 2001), - another set of organisations to try to solve the diversity issues of the FE sector and more initiative overload for FECs (Evans 2007).

In spite of centrally driven funding and inspection regimes FECs still lack a coherent and unified national system, a view echoed by several (see Coffield, 2004; Huddleston and Unwin, 2007; Hyland and Merrill, 2003; Lucas, 2004).

In the LB sector a YTS programmes for Agriculture and Horticulture were introduced in 1983, designed to improve the transition from school to work and provide school leavers with a structured training programme and an opportunity to improve their potential for future employment in agriculture and horticulture (MSC and CGTEA, 1983). TVEI and CPVE schemes and a GNVQ (Land and Environment) were also introduced to follow the national pattern (Lester, 1999).

All of these programmes (YTS, TVEI, CPVE and GNVQ) had limited uptake in the sector as employers found that they were too general to be useful as a vocational qualification for those wanting to enter practical farming, but had merits in providing an entry point into vocational routes leading to farming (Lester, 1999; Swan, 1986). There have been limited references to agricultural education and training since the Hudson report (DfEE, 1973) was produced by the Joint Advisory Committee on Agricultural Education. This committee was set up with Professor J P Hudson, Director of Long Ashton Research Station, University of Bristol as chairman. The Hudson report (1973) reviewed the existing LB system of education and found that there were 41 County Colleges (the former FI) and a provision through the local technical colleges where there was no local County College. Day release or 'extra

mural' classes had become popular during the 1960s. This provision had been often coupled with a pre-college practical provision, a requirement that students undertook one or two years of practical work before being able to gain a place on a full-time course. The NAFE report (DES, 1987) confirmed that colleges were emphasising practical skills, students often spending 40 to 50 percent of their timetable under practical instruction. Lantra<sup>7</sup> has tried to identify skills gaps in the industries that it serves but doesn't link these to the current training provision (Lantra, 2000; Lantra, 2009). An Ofsted survey of the land-based provision (Ofsted, 2008) confirmed that the colleges in the sector place a high emphasis on practical skills teaching and employability for those planning to enter the industry.

Further and higher education is making a valuable contribution to the training of and updating of the rural workforce, but it is timely to consider whether the responses to recent developments in the industry and the economy are sufficiently well orientated and to see if training and education in the LBCs mirrors the situation.

## **The role of organisations linked to agriculture and education**

There are a number of important organisations associated with agriculture which have links with land-based colleges and agricultural education. The following section discusses the relative nature of their status and influence in relation to agricultural education and training.

### **The Royal Agricultural Society of England (RASE)**

As was noted earlier in this chapter, was the first organisation to support and promote science and education in agriculture, to help the industry become more productive and meet growing food requirements for an expanding population. RASE achieves its objectives by maintaining a learned society, by conducting research and development work, by producing technical publications and offering grants. It promotes education and training through conferences, discussions and debates, and by staging some agricultural and countryside events. RASE works in partnership with other bodies,

---

<sup>7</sup> Lantra is the name of the SSC for the Land-based sector and is not an abbreviation or acronym

such as the National Farmers' Union (NFU) to help and support the industry, especially by presenting an independent view to those in positions of influence, including in particular the government. RASE has also set up and contributed to the work of many rural support organisations: for example Farm Crisis Network, Farming and Countryside and the Environment (FACE), and the International Agri-technology Centre. At the RASE headquarters at Stoneleigh Park, Warwickshire, a national centre has been developed where aspects of rural life are practised, for example the use of renewable materials and demonstrations of sustainable practice. RASE used to maintain model farm enterprises of large dairy, beef, and pig herds and a large sheep flock, which acted as showcases for the industry, championing and testing new ideas. Unfortunately, these units closed during the 1990s reflecting the downturn of the agricultural industry and the shift from agriculture to environmental and rural affairs, a situation mirrored by government departments.

### **Department of Food Farming and Rural Affairs (DEFRA)**

The agricultural industry has struggled economically in recent years, with poor prices being received by farmers for their produce, forced down by low world prices and pressure from supermarkets to offer cheap food. In spite of this crisis the Ministry of Agriculture Food and Fisheries (MAFF) was abolished by the Labour Government in 1998 and replaced by DEFRA. The role of DEFRA is directed more towards environmental and general rural issues and less towards agriculture, and reflects the 'dilution' by the government of the status of the agricultural industry by reducing the importance attached to agriculture and food production. There has also been a decrease in public confidence in agriculture and food production which began in the late 1980s when Edwina Currie, a Junior Health Minister at the time, claimed that all eggs were contaminated with salmonella. Public perceptions of agriculture plummeted further following outbreaks of diseases such as: Bovine Spongiform Encephalitis (BSE) or Mad Cow disease during the 1960s and 1970s, which is thought to have led to Creutzfeldt-Jacobs disease (CJD) which affected humans during the 1990s; Foot and Mouth, (2001), bird flu (2003) and Blue Tongue (2007). New biosecurity and traceability measures introduced on farms have helped to redress this position, and improve the public's faith in food safety and their overall perception of agriculture.

As a result of this period of depression, numbers of new entrants into the industry have declined (Spedding, 2009). The government also appears to attach limited importance to agricultural education as DEFRA do not publish a view or policy on agricultural or land-based education and are instead concerned with the broader rural sector encompassing businesses that operate from a rural base. Although there has been a history of state guidance for skills training and the provision of appropriate education for the industry, this has now largely evaporated. A report produced by DEFRA (2004), *Learning Skills and Knowledge Review*, examined the requirements for training and education needs in rural areas and explained that the pattern of learning needs varies substantially between businesses in rural areas, including farming. The report concluded that rural England is not comprised of unskilled people working for low wages in declining industries, but that many new businesses in rural areas have been set up by in-migrants, often professionals with their own skills and support networks. Newcomers may not need locally available learning opportunities because their requirements may only be satisfied through specialist channels, and are unlikely to be for agricultural skills. These newcomers are important to rural economies because their earning power enables them to purchase local services; and the evidence indicates that these people will give preference to living in those areas where such services exist and are delivered to an acceptable standard. A need to support the development of adequately skilled local service businesses was identified, with access to local learning opportunities. The report ignored the issues associated with education and training for those working in agriculture.

### **Agricultural Training Board and Lantra**

The Agricultural Training Board (ATB) was established in 1967 as a statutory national training organisation, for the sector. It was conceived under the Industrial Training Act (1964) and has now devolved into Lantra, the Sector Skills Council (SSC), for the sector. Legislation in 1966 stated that all Industrial Training Boards (ITBs) must be self financing from a levy that was to be imposed upon producers. According to research conducted by Peberdy (1978), many farmers had shown a lack of interest in training up until the 1960s, as indicated by the poor take-up of places in FIs, so there was a very unfavourable response to the ATB when it was established and farmers were charged a levy to run it. As Peberdy (1978) explained, the levy,

whilst only representing 0.8% of the wages bill, caused a near ‘peasants’ revolt’ by farmers, again demonstrating the lack of enthusiasm for education and training by farmers. The ATB initiated a series of short skills based training programmes, usually delivered by their own trainers as private group ventures, rather than through the colleges (FEU, 1987).

One of Lantra’s responsibilities is to monitor the skill levels and needs of the sector, (Lantra, 1999; Lantra, 2000; Lantra, 2001; Lantra, 2005; Lantra, 2007b) and to develop the sector’s *Skills Qualification Strategy* (SQS) (Lantra, 2007b) and SQS Action Plan (Lantra, 2009). In general SSCs have attracted criticism for not representing their sector appropriately (Payne, 2008), and the pivotal role they command is acknowledged (Leitch, 2006). Lantra attempts to represent the LB sector through employer groups (17<sup>8</sup>) (Lantra, 2000) but as the sector comprises many sole-traders it is unlikely that these are fairly represented as time may not permit some employers to engage with these groups. Some farmers are critical of the many Lantra staff who have a limited land-based background and thus a superficial understanding of the sector (Hewitt 2010 Pvt Communication). The investigational and survey work that Lantra have conducted tends to lack rigour and detail, and is often very generalised, for example the Sector Skills Agreement (Lantra, 2006) states that:

...microbusinesses predominate in the sector, as over 90% of the businesses employ fewer than ten people (p2)

and:

31% of full-time employees had participated in training during the last 13 weeks.....average number of days devoted to training increased by 25%, rising from 4.3 to 5.7 per establishment (p11)

No mention is made of the **actual** numbers involved, or how the data was collected.

In September 2008, Lantra launched a series of events on the theme of *Crisis of Skills in Farming* designed to address the projected shortage of skills in the industry (Lantra, 2008). Key issues that were identified included the ageing workforce in agriculture and forecasting a shortage of 240,000 individuals across the

---

<sup>8</sup> agricultural livestock and crops; animal care; animal technology; aquaculture, environmental conservation; equine; farriery; fencing; fisheries management; floristry; trees and timber, game and wildlife management; land-based engineering; landscaping, productive horticulture and veterinary nursing

environmental and land-based sector by 2020, including 60,000 in agriculture, (*ibid*) which I suspect is an over-estimation of the real situation, as during my research, the LBC staff were adamant that these figures were exaggerated, there is however a pressing need to encourage young people into the industry. It was also reported that many employers reported difficulties in accessing funding:

- for training including apprenticeships, which could explain why uptake is poor, and
- to support ‘bite-sized’ units of learning for business and technical skills and to strengthen their own role working strategically to influence policies and funding support for the industry, which discourages uptake.

No practical solutions were suggested however. Funding throughout all FECs is however in a position of flux and uncertainty at the present time.

Lantra provides some limited careers guidance (Lantra, 2007a; Lantra, 2007b) to the industry and to colleges, but this guidance covers a large range of areas (17) for example floristry and fencing, and lacks specificity towards agriculture. Lantra have created a bank of job profiles which indicates the specific skills required for a range of farm work, such as a herdsman or a tractor driver, but farmers tend not to use the information (Hewitt 2010 Private Communication), knowing intuitively what skills they expect their prospective employees to have. Part of Lantra’s work is also as an (AB) which was set up in the late 1990s to offer very specific practical qualifications, for example chain-saw operation and sheep shearing programmes leading to certification. Farmers, colleges and ABs were slightly concerned about the integrity of this awarding function (Lantra, 2004) but it has always been organised as a separate business.

### **National Association of Principal Agricultural Education Officers (NAPAEO) now Land-based Colleges Aspiring to Excellence (Landex)**

NAPAEO was the body that represented land-based college principals, each principal being the main agricultural educationalist in each county. In 2006, NAPAEO became Landex (Land-based Colleges aspiring to Excellence) to reflect the change in the structure of many agricultural colleges. Where LBCs have amalgamated with larger FECs, the post of LBC Principal largely disappeared, becoming for example Head of

the Land-Based faculty. FEC college Principals or Chief Executives were not especially interested in NAPAEO membership, (Croxon 2010 private communication) so Landex was formed to replace it and provide a sector-specific forum for senior educationalists from the land-based sector. Landex membership currently covers 30 colleges in England with eight associate members in Scotland, Ireland and Wales. Several of these colleges are also members of the 157 Group<sup>9</sup> and Cultiva (formerly ELITE<sup>10</sup>), which promotes high quality LB-focussed provision to support LBCs in niche aspects of teaching, research and consultancy. The emergence of these new and specific organisations, which the LBCs are able to join, shows how the sector is pro-active in keeping up to date with educational issues, and is keen to expand its portfolio of activity. These initiatives are college and sector driven and not prompted by government. The total Landex membership has a multi-million pound collective resource that includes over 12,000 hectares of agricultural land, woodland, water and gardens together with modern learning and commercial technology resources.

The member colleges offer a curriculum from pre-entry through to post-graduate study in a huge range of land-based and related subjects. They deliver very high proportions of land-based FE and almost 60% of all HE in land-based subjects (Landex, 2009). They also deliver substantial proportions of work-based learning for the sector as well as bespoke training for many businesses and their workforces, and to varying extents the colleges serve local, regional, national and international markets. The colleges also provide support for rural innovation, business growth and development, and offer residential provision for a wide range of learners together with the associated social and support services. They have engaged with schools by supporting all stages of the national curriculum, including commitment to the initiative, *Education Year of Food & Farming*, in 2008. The LBCs have become involved in a wide range of commercial and educational partnerships and voluntary sector organizations. Member LBCs have also participated in research and field trials to complement the learning process and respond to the implications that climate change has upon the land use and management agenda through curriculum design, operational activity and industry partnerships.

---

<sup>9</sup> This is a member-based organisation representing the largest FECs in England as is named after paragraph 157 of the Foster Report (2005)

<sup>10</sup> English Land-Based Institute of Training and Education



In order to join Landex, member colleges are required to meet minimum quantitative and qualitative membership criteria. Landex has thus embarked on an ambitious programme of continual quality improvement and self-regulation. It has recruited a Director of Quality Improvement and formulated and agreed a Quality Improvement Strategy (QIS) and established standards with a view to ensuring that ultimately all colleges displaying the Landex logo are providing good quality provision. The QIS process seeks to recognize quality in all aspects of college activity beyond that covered by external inspection. They have started to collect information and data that will enhance their capacity to 'benchmark' performance within the membership. Initial criteria for HEIs to become Landex members has been agreed, where most provision attracts at least a 'broadly confident' rating from the university Quality Assurance Agency review teams. Landex also delivers a programme of CPD for member colleges and has established enhanced communications between members through an e-mail networks for particular roles and interest groups. Landex is showing itself to be a significant organisation designed to improve and promote land-based education.

### **National Farmers Union (NFU)**

The NFU was established in 1908, to champion farming and provide professional representation and support to farmers, working as a negotiating body between the industry and government. It does not have a policy on agricultural education but has strong links with two organisations which are connected with rural life and environment, the Farmers Wildlife and Advisory Group (FWAG) and Land and Environment and Farming (LEAF). Although these organisations do not have policies on education and training either, part of their remit is to encourage school children to learn about the country side and farming through programmes such as FACE. In 2001, RASE and the NFU merged their educational activities and formed FACE, with the aim of helping young people, wherever they live, to learn more about food and farming in a living countryside. FACE now has 50 member organisations, for example Bayer Crop Science, Co-operative Farms and the Home Grown Cereals Authority, all committed to support education associated with food, farming and the countryside. This is an excellent move, whereby commercial companies become involved in encouraging young people to take an interest in farming and the

countryside. A positive endorsement of FACE's work came from the government's report *Sustainable Farming and Food – facing the Future*:

The Government welcomes the FACE initiative, which is an excellent example of how organisations can work together to co-ordinate the educational resources they provide. (DEFRA, 2002: 47)

### **Land-based colleges in the broader FE and skills context**

During the last few decades politicians from all political parties together with business leaders and industrialists have attributed the decline in Britain's economic competitiveness in world markets to a lack of relevant, or insufficient vocational training (Rees, Williamson and Winckler, 1989). During the 1970s and 1980s there was a rise in youth unemployment which prompted Lord Callaghan to initiate the 'Great Education Debate' in 1976 (Callaghan, 1976) which highlighted the perceived weaknesses of the content and organisation of British education and training. Since then, successive governments have attempted to mould and modify educational policy in order to improve learner outcomes and ultimately to improve the country's economic performance. The last UK Labour government was firmly committed to the belief that a highly skilled workforce is key to national economic competitiveness, productivity and social inclusion (DfES, 2003; Lantra, 2009; Payne, 2008; Payne, 2010). In the UK, qualifications have been used as the driver and measure of the success of this.

The major weakness of governments' approach to skills is that it is very narrow, and fails to recognise the complexities inherent in the use of skills (DBIS, 2009; DBIS, 2009). There is also a tendency to consider skills as something for less able students, as Pring (2004) points out, or something we all lack and need to improve. Workforce training must be designed to develop a broader grasp of the issues surrounding the practical tasks, enabling learners to make judgments, weigh-up the evidence, use their imagination and assess the values involved.

The 2003 White Paper, *21<sup>st</sup> Century skills: realising our potential* (DfES, 2003), was a joint production from the Departments of Education and Skills (DfES), the Department of Work and Pensions (DWP), the Department of Trade and Industry

(DTI) and the Treasury (HMT). These departments represented a range of approaches geared towards increasing UK productivity: the DfES for establishing the qualification framework, the DWP for creating links between those with the right qualifications and businesses, and the DTI for establishing targets (Pring, 2004). The White Paper emphasised that the development of skills could result in improved productivity, innovation and profit throughout the UK, leading to higher levels of employment and higher standards of living for all. Means to bring about this skill development were also proposed, with more vocational routes, greater qualification flexibility, more training to be made available and greater responsiveness by colleges to employer needs. The literature on skills (Hager, 2004; Keep, 2007; Pring, 2004) shows that improving skills is only one component contributing to increased economic wealth and prosperity of the nation.

The government paper: *Skills: getting on in Business, Getting on in Work* (DfES, 2005) continued to develop the theme of the need to improve skills. The Foster review of FE - *Realising the potential - A Review of the future role of Further Education Colleges* (Foster, 2005) examined the future role of FE, as did the report: *Further Education: Raising Life chances* (DfES, 2006) concluding that FE is blighted by its fragmented nature and the lack of a clear national purpose. The Leitch review of skills (2006) *Prosperity for all in the Global economy - world class skills*, which was commissioned by the government to examine the global context of skills in the UK helping to identify the skills considered to be needed up until 2020. It predicted that there could be a UK skilled labour deficit of 2.2m, and also that:

... a better skilled workforce could bring an estimated gain of £80bn to the British economy over the next 30 years (ibid, p15)

The review recommended the establishment of ambitious qualification targets, and the strengthening of 'demand-led' mechanisms by enhancing the role of the Sector Skills Councils (SSC).

Unwin (2007) argued we should be challenging Leitch more, questioning the underlying concepts and premises, and suggested that despite its title, the report appears old fashioned and as if had been written by a Martian. Keep (2007) argued in the House of Commons Education and Skills Committee that the analysis which Leitch provides is backward looking for two main reasons:

1. it fails to understand the national economic context of 'skills' and why a country has a particular set of skills and how these are used
2. missing from Leitch is any linkage between economic development and up-skilling

Keep (2007) also argued that until this link is made, much of the money invested in up-skilling will be wasted, because it will not be used appropriately in the workplace. He thought that a lot of effort could be channelled into chasing targets, which might be met but would not necessarily transform the economy.

The government produced a formal acceptance (DIUS, 2007) of the Leitch report's recommendations, and together with other related documents (DWP, 2007; DWP and DIUS, 2008) set out its plans for working with partners, employers and individuals to address the identified skills challenges of the next decades.

Within the agricultural industry there is a dearth of information about the current skills levels and how they contribute or not, to improved farm output. Lantra leads on the rhetoric that skills training is industry-led (Lantra, 2008) but the LBCs indicate (Landex, 2009) that this is not always the case and claim they are proactive in identifying and meeting local industry needs. Lantra's work (*ibid*), suggests that a gap exists between the overall skill needs of industry and the provision of LB education and training. However, solutions to this problem were not proposed.

Spedding (2009) investigated the future of the agricultural industry on behalf of the RASE and Lantra, and highlighted the problems of recruiting insufficient new entrants into the industry. He concluded that 60,000 new entrants will be needed into the industry over the next 10 years, but he found the industry to be poor at recruitment. The industry has suffered waves of severe economic difficulties and yet both the government and farmers tend not to see a value in training, as observed by Piggott (2010), a farmer, writing in the farming press, claiming that farmers do not perceive training as a means to improve agricultural output. Ben Robinson (2010), a history graduate and potential entrant to the industry lamented that he wanted to enter farming but had found it an uphill struggle to persuade farmers to take on an inexperienced trainee. The industry must take heed of this situation.

Major global challenges that will affect the agricultural sector in the future were identified by the Smith Institute in its report, *Feeding Britain* (Bridge and Johnson,

2009). The challenges include population and economic growth in emerging economies worldwide, changing dietary patterns, finite availability of land, climate change and the continuing availability of key resources such as water. These factors are expected to lead to a slowdown in the rate of increase of global food productivity. The report examined the production of a healthy and sustainable diet and asked:

How does it fit with the change in consumer and business behaviour following the economic downturn, and do we have the right skills in place to achieve it? (ibid p 14)

The report recommended that training programmes to assist farmers to modernise their businesses were needed. This process of introducing training has already started in Scotland, Northern Ireland and Wales, but not England. Farmers are characterised by an increasingly older age profile, which, coupled with low levels of new entrants to the LB sector, is a matter for concern given that any drive to maintain or increase production and efficiency will require skills, energy and fresh thinking. This report also highlighted the lack of succession in many farm businesses, and the skills drain into other, more attractive industries. As farms get bigger, the traditional family farm is being gradually replaced by bigger (though still mainly family-based) units requiring external labour, and where farmers need to have good management and technical skills (*ibid*). Many farmers have these, but access to and taking up a range of knowledge transfer facilities and education/training opportunities are key to improving these skills across the industry.

In order to help meet these challenges there is a major opportunity for the LBCs to continue to attract and prepare new entrants for the industry and up-skill the existing workforce.

## Chapter 3 Methodology

### Introduction

In this chapter, I will discuss the methodological approach chosen for this thesis. A researcher's view of the world will influence the choice of paradigm and this in turn influences the methods and type of knowledge produced (O'Leary, 2004:137). The current usage of paradigm derives from Kuhn's (1970) approach and relates to the way we see the world and organise it into a coherent whole. A paradigm frames a research topic and each one may have three elements (MacNaughton, Rolfe and Siraj-Blatchford, 2001):

- a specific collection of beliefs about knowledge and our relationships with knowledge
- a methodology concerning what to investigate and how to do this, and what to measure or assess and how to do this
- criteria of validity about how to judge someone's claim to know something

The framework of assumptions and paradigms that underpin research and an intellectual understanding of how the world operates and how knowledge is produced have altered over the decades. Forty years ago, research in the social sciences was heavily influenced by positivism, whereby scientific rigour and an experimental approach were applied. Positivism assumes a knowable predictable world with hypothesis driven methods, empirical and reductionist research, and objective and expert researchers. More recently the concept of post-positivism has developed whereby the ideas of positivism have been called into question in favour of acknowledgement that the world is ambiguous and variable, that research can be intuitive and holistic and methods may be inductive and exploratory, giving rise to qualitative findings and results. A range of paradigms now exists to attempt to cater for different assumptions and perspectives, as they affect the approach to educational and social research such as constructivism, empiricism, interpretivism and so on. I explored the features and assumptions of post-positivism paradigms as they relate to the research questions (RQ) and methodological approaches planned for this project (Hughes, 2001). I approached this project from the paradigm of a social constructivist

or an interpretivist, using mainly a qualitative approach to data collection (Schwandt, 1994). I chose this approach because of what Christensen and James (1999: 137) refer to as its:

...qualitative exploratory power in providing depth, richness, and realism of information and analysis.

Social constructivism seeks to explore the fact that reality is socially constructed, and that as the researcher, I seek to understand multiple social constructions of meaning and knowledge (Denscombe, 2005). The aims and objectives for this work as described in the introduction were re-formulated into the following RQs:

1. Do the changes in agricultural education mirror those in the land-based sector that it now serves?
2. What has driven change in agricultural education?
3. What changes to policy and practice should be recommended as a result of this study?

The use of interviews, observations and the analysis of documents are means by which the researcher can acquire multiple perspectives. (Robson, 2002) In order to explore the RQs, I wanted to explore particular people's knowledge, views, understandings, interpretations, experiences and interactions, to discover whether or not the changes in agricultural education mirror those in the land-based sector, and what has driven these changes. This approach to the research design, and the proposed analysis of the data, builds on the work of Gibson (2006), and the notion that there is an interrelationship with different phases of the project and not simply a linear approach to the work.

### **Rationale for the research design**

According to Yin (2003), the research design is the logical link between the RQs and the data to be collected. Therefore the research design needs to assist myself as the researcher to answer the RQs (Robson, 2002). Qualitative and quantitative methods can be used together in the design of one study as outlined by Miles and Huberman

(1994). They described several different types of design whereby several methods to gather data were integrated into one design. One example included the use of a survey to gather initial data, followed by a series of semi-structured interviews, as part of a case study. This was the planned approach for this project.

### **Why a case study approach?**

Case studies focus on the specific instances of a particular phenomena with a view to providing an in depth account of events, relationships, experiences, or processes occurring in that particular instance (Denscombe, 2007). Yin (2003) confirmed that conducting a case study is far from an easy option for the researcher, but rather a bounded system, for example, one LBC exemplifies real people in a real situation. Case studies are used to observe effects in real contexts, recognising that context is a real determinant of both cause and effect (Cohen, Manion and Morrison, 2004). The paradigm most suited to case study research is that where the emphasis is on the interpretive and subjective dimensions. Here the approach is to understand and interpret the LBC world in terms of its actors. In a case study the spotlight can be towards a small number of instances rather than a wider spectrum. The logic of focussing on two individual cases was that insights would be gained from an in-depth study of two LBCs that might have not have been gained by looking at a larger field by conducting a wider and more shallow survey.

A case study is a research design in its own right and is a detailed study, concerned with rich and vivid descriptions of events relevant to the case, as described by Merriam (1988). Any and all methods of gathering data can be used as a case study. It provides a chronological narrative of relevant events and it blends description of events with an analysis of them. It focuses on individual actors or groups of actors and seeks to understand their perception of events. The researcher is integrally involved in the case and an attempt is made in the writing up of the report to portray the richness of the case. As Yin (2003) observes, case study is a design particularly suited to situations where it is impossible to separate the phenomenon's variables from their context. Wilson (1979:148) conceptualises the case study as a process: ...which tries to describe and analyse some entity in qualitative, complex and comprehensive terms, as it unfolds over a period of time.



In order to use a case study approach, I initially carried out a detailed survey of the websites and prospectuses of all the LBCs. This enabled me to then select two colleges in England to treat as case studies. For each college, I carried out an in-depth analysis of the context of the colleges, their history, changes to their curriculum, teaching and learning. I did this by employing the following methods:

- a) Analysis of documentation
- b) Visits to the case study colleges – 8 per college each lasting for about one hour
- c) Conducted semi-structured interviews (18 in total: 12 in colleges and 6 with key informants)

## **Interviews**

The value of using interviews as a research tool has long been recognised as a means of eliciting information from those participating in a particular environment, about that environment (Cohen, Manion and Morrison, 2004). The advantages of interviews are that they are very flexible and suitable for generating information that has depth and is detailed. Subjects can be probed and issues pursued and lines of investigation followed over a relatively lengthy period. The researcher is likely to gain valuable insights based on the depth of the information gathered and the wisdom of participants.

Interviews are a good way of producing data based on opinions of the interviewees, of their priorities and ideas. Views can be explained and expanded upon and interviewees can give their own priorities and what they perceive to be crucial factors. Interviews are very flexible, in that lines of enquiry can be developed and adjusted during the interview as required. Unlike when using questionnaires, the validity of the data can be checked for accuracy and for relevance as it is collected and clarity can be obtained during the interview. As interviews are usually pre-arranged and scheduled for a convenient time and location, the response rate is usually high and can be rewarding experiences for respondents as there is a more personal aspect to this method. People tend to enjoy talking at length about their perceptions to someone who will listen and not be critical.

The questions for semi-structured interviews are based on questions that arose from the researcher's and other's experiences and following the review of literature. Ideas that emerged as a result of the analysis of the college prospectuses and web materials together with informal discussions with LBC staff are also important in prompting questions. The questions that were devised were designed to discover the perceptions of college staff concerning the changes to the LBCs over recent years and what had driven these. The interview questions can be seen in Appendix 2. Designing the preliminary questions can be difficult so I followed the advice given by Patton (1990) to ask open ended, neutral questions, I avoided asking 'why.....?' as this puts a burden on the respondent, instead I asked 'how....?', and tried not to ask complex, many layered questions as this causes confusion.

However, the major weakness of interviews is their time consuming nature as the analysis of the interview transcripts is 'end-loaded'. Coupled with this is the amount of time required by those taking part, plus travel time and costs. I was able to arrange interviews to dovetail in with my other work to reduce this effect to the minimum. All interviews were recorded using a small pocket size digital recorder and field notes were taken and written down during each interview. After each interview the main (and new) issues were identified and incorporated into the next interview to demonstrate a progressive focussing during the interview process to try and tease out the major issues and their significance. Transcribing and coding is a major task for the interviewer and can be a very lengthy process. I transcribed my own interviews as soon as was practical after the interviews took place in order to maintain my familiarity with the content and to help with coding and analysis as the data generated was of an open format. The impact of the interviewer and the slightly different contexts meant that consistency and objectivity can be more difficult to achieve, as each interview is unique. This may have an adverse effect on reliability. Tape recorders can inhibit interviewees, although the effect quickly wears off during the interview (Denscombe, 2005). An interview is an artificial situation where people are speaking for the record on the record and which some people find daunting. My interviewees seemed to take no notice of my digital recorder as it is physically very small.

## **Conducting the research**

### **Planning the case studies**

In the planning stages I needed to be aware of the circumstances of the case including possible disruption for the college, the need to negotiate access, as commented on by Gillham (2000) and Yin (2003). Conducting the study meant considering how to collect primary and secondary sources of data, what opportunities there would be to check data, triangulation, how the data would be analysed and interpreted, theory generated, and the report written. The consequences of the research, such as the anonymity of participants, was also an important consideration, but this is less problematic as generalisations may be made from a case study. Walton (1992) said that the logic of a case study is to demonstrate a causal argument about how general social forces take shape and produce results in specific settings. That demonstration, in turn, is intended 'to provide at least one anchor that steadies the ship of generalisation until more anchors can be fixed for eventual boarding' (Walton 1992:122). He went on, 'researchers are careful about this work, we do not want to anchor the wrong ship, or, have our feeble lines snapped by too heavy a cargo'

### **The selection of the case study colleges**

Understanding the critical phenomena may depend on choosing the case well as explained by Yin (2003). Stake (1998) summarised the major conceptual responsibilities for the researcher as:

- Ensuring the case is bounded
- Selecting phenomena, themes or issues via the RQs
- Seeking patterns of data to develop the issues
- Triangulating key observations and bases for interpretation
- Selecting alternative interpretations to pursue
- Developing assertions or generalisations about the case

Stake (1998) also stated that the more the researcher has an intrinsic interest in the case the more the focus of the study will be on its uniqueness, particular context,

issues, and stories. Bassey (1999) proposed a model for conducting a case study, which included: identifying the research as an issue, asking RQs and drawing up ethical guidelines, collecting and storing data, generating and testing analytical statements, interpreting or explaining analytical statements, deciding on the outcome and writing the case report, and publishing it.

Criteria that were important in the selection of the two case study colleges in this study were the geographical location of the colleges, to enable the work to be manageable and giving easy access to staff and resources. The availability of some historical information about each college was important to help trace trends and provide background information. It was important for each college to have a curriculum, both in subjects offered and levels, representative of the remaining 30 colleges. As the main focus of this work was at FE level, it was crucial that the case study colleges could demonstrate their work up to and including level 3 qualifications as per the NQF/QCF<sup>11</sup>. The availability of recent Ofsted results was helpful in summarising the academic achievements of the college in relation to the curriculum offer.

It seemed that qualitative interviewing would be the most suitable method and would form a major part of the case study work, as proposed by Mason (2002). She suggested that a legitimate way to generate data from a particular sociological phenomenon is to interact with people, by talking, listening, and gaining access to their accounts. I worked with a small sample of six interviewees from each college, using semi-structured interviews to gain access to data on perceptions and experiences.

### **Ethical considerations**

The aim of this project was to create new knowledge and an improved understanding of the changes within the land-based sector and how land-based colleges have responded to these. It was crucial that the task was approached with integrity and rigour (O'Leary, 2004). My position in relation to the participants in this project is

---

<sup>11</sup> National Qualification Framework (NQF) and Qualification and Credit Framework (QCF)

also crucial (Cohen, Manion and Morrison, 2004). I am an **insider**, on the basis of my previous experience in that I have held positions in college as a lecturer and manager involved with developing and teaching students of agriculture, environmental studies and associated subjects, for example equine studies and forestry. I am also an **outsider** in that I am not employed by either of the colleges, but work closely with them. I have a good working knowledge of the colleges and their provision of courses. This meant that I must not compromise my professional working relationship with the two colleges who agreed to take part.

My own career has been spent within five very different LBCs, where I taught in four of them. Thus, I am an insider as I am familiar with the LBC settings and of the 'quirks' of the system, and I understand their inherent culture. This is a helpful position as I know how to diplomatically navigate the quirks and culture without causing offence and have sufficient knowledge and insight into the system to be trusted to use the collected data with care and confidentially, not allowing the participants to be identified from their contributions. I decided to seek out and interpret situations with which I am familiar and therefore have insider knowledge, and yet where I am also an outsider in that I am not an employee of any of the colleges or organisations taking part in this study. It is relevant to seek the views of staff teaching and working within two agricultural colleges and those of other key informants in order to find answers to the RQs.

My current professional role is as a regional Curriculum Development Manager with a large AB, working with a group of FE colleges and HEIs to provide advice on the curriculum, for vocational subjects and related qualifications. I support these centres in their work with qualifications by offering guidance and leading staff development sessions. I help centres with curriculum modelling, lesson planning, designing assessments and administrative arrangements, and also advise centres about selecting an appropriate curriculum or progression route tailored to suit the particular needs of groups of learners. My role does not involve making any judgements or decisions about a college, especially those judgements which are important for government performance data or about quality issues. These decisions are made by my colleagues within the Quality Assurance (QA) part of the AB and are not decisions that I ever make. These areas include:

- The approval of the centre to run a particular qualification by checking the suitability of both their physical and human resources
- Annual monitoring of this process, known as a Quality Review and Development (QRD)
- Checking that a centre is meeting national standards and hence governing the ability of students to claim certificates for their qualifications which is reflected in retention and achievement tables for centres, a process called National Standards Sampling (NSS)

I have tried to minimise any potential conflict of interest between myself and a centre where staff have agreed to be interviewed. My professional role with both of the case study colleges is supportive and non-judgemental and my contact with centres is to assist them to consider a variety of qualifications and teaching methods to help raise the achievement of their learners.

The other considerations that I followed included:

- Asking permission within the organisation to seek the views of selected staff prior to the start of the work
- Giving a written reassurance that each person selected will remain anonymous and will not be identifiable, neither will the participating college be identifiable
- A reassurance to participants that information provided by them is treated in confidence and with anonymity
- Being aware of constant demands on staff for information and their limited time..... 'not another questionnaire/interviewer'
- Making the preliminary recommendations and results available to participants and being willing to discuss my interpretation, recommendations and conclusions with them.

The importance of trustworthiness in qualitative research is crucial (O'Leary, 2004) as this complements the reliability and validity of the collected data. In this project and for all the subsequent work linked to this project, I followed the guidance given by

the British Educational Research Association (BERA, 2004) in relation to the ethical considerations when conducting research work.

### **Conducting the interviews**

The process employed for interviewing in this research project was as follows:

a) a short pilot interview was conducted with a colleague in May 2009, to test my selected questions that were to be used to semi structure each interview. He had a land-based background having taught and held management positions in a large land-based college for many years so was familiar with the overall genre of the work. This was also an opportunity to experiment with appropriate techniques for interviewing. I asked my pilot interviewee what he felt that I could do differently and better during the interview process. As a result of this pilot interview minor changes were made to the initial set of questions (see Appendix 2) and included:

what use is made of the college farm as a teaching resource?

what are the backgrounds of current students?

how has change impacted on you?

what are current impacts that might influence change?

The fourth question was included after conversation with my pilot interviewee. He had been watching the BBC 'Spring and Autumn Watch' programmes and wondered if such programmes influenced individuals when thinking about studying at college. This made me aware that I would need to capture evidence of the fact that change is a dynamic process and so colleges, their staff and (potential) students are being influenced all the time by external forces (e.g. the media).

b) a series of individual semi-structured interviews were conducted with six members of staff from each of two colleges, and with six key informants. These were people who were working for organisations other than colleges, where their organisation had a potential interest in agricultural education and training, for example Lantra the sector skills council for the industry, and the National Farmers' Union (NFU). These interviews took place after the college interviews to allow me to

focus on the emerging issues and get further clarity on these. All the interviews took place as face-to-face interviews between May 2009 and October 2009.

## **The Phases of the Study**

The study was designed to be conducted in three phases. In order to explore my RQs, I first needed to carry out an overview of agricultural education, tracing its origins and trends and then to examine the current position for training and education across all the current land-based colleges and the reasons behind these changes. **Phase one** of the research was a desk study of the land-based colleges carried out using materials available on the Internet, a review of college prospectuses and Ofsted inspection reports.

Findings from the first phase established that as there are 32 colleges teaching land-based subjects (16 specialist colleges and 16 that have merged with FECs) it was inappropriate to approach them all. Instead two colleges were selected as case studies in the **second phase** and it was decided that they would provide views representative of the whole group of 32 colleges, to supplement the desk study. The colleges were chosen as being slightly different, for example in size, one being an associate college of a larger land-based HEI offering small amounts of FE level work, and the other being entirely independent financially and physically from all other institutions but yet having interesting links and partnerships with other bodies. Both colleges have similar aims, missions, and objectives and I considered that they represented the sector well. The outline features of the two colleges for this study were:

**College A:** This college has a varied land-based curriculum offering 20 different curriculum areas, covering levels from entry to post graduate. There are 8,500 students currently studying at the college (5,900 part-time and 2,600 full-time), and 132 staff. The college has a separate HE centre and a schools centre. It is an independent college with links to other institutions but is sufficiently large financially to operate as an independent and autonomous college. The college has a farm of over 600 hectares. During the Ofsted inspection in autumn 2008, the college was graded level 1 overall. This college is 50 miles from my home.



**College B:** This college also offers a fairly broad mainly land-based curriculum covering 14 different curricula. It recruits mainly FE level students on this campus covering entry level to levels 3 and 4, aspires to HE but uptake is limited. There are 3,800 students currently studying at the college (3,000 part-time and 800 full-time), and 29 staff. The sister college is situated 70 miles away and focuses more on HE work with some FE. Students can move to the sister campus for HE. The college has a mixed farm of 2,000 hectares. Ofsted results in July 2008 were poor, grade 3 was awarded for many of the areas that were inspected. This college is 12 miles from my home.

Both colleges are well resourced to deliver a land-based curriculum and both were accessible by me for travelling to them to meet and interview staff.

The **third phase** involved semi structured interviews with key informants.

According to Flick (2006) triangulation is the term used to name the combination of different methods, study groups, local and temporal settings and different theoretical perspectives in dealing with phenomena and where data from one source are used to validate data from another source. It was first conceptualised as a strategy for validating results obtained with individual methods. Flick cites Denzin (1989) as identifying several types of triangulation, those of method, investigator, theory and data, which together he claimed remain the soundest strategy of theory construction by systematically extending and completing the possibilities of knowledge production, by increasing the scope, depth, and consistency in methodological proceedings. In this research project triangulation was carried out using data from the desk study to validate data from the semi structured interviews and vice versa.

### **Data collection**

The data collection was in three parts:

### **1. Analysis of documentation from all land-based colleges**

An analysis of all 32 land-based colleges from web-based materials, for example their history, minutes of Governors' meetings, college policies and hard copies of prospectuses was completed to discover the extent of the current curriculum offer nationally.

### **2. Case studies**

- a) Analysis of documentation (e.g. prospectus, governor minutes, colleges' history)
- b) Arranged eight visits to each college to view and explore the campus and physical resources, and conduct interviews.
- c) Conducted interviews with six staff from each college – interviews lasted around one hour each.

### **3. Semi-structured interviews with key informants**

Semi structured interviews with six key informants from six different organisations each with a view on the changes in agricultural education, for example Lantra and the NFU.

The following table describes the interview schedule for the case studies and for the key informants:

**Table 6: Interview schedule**

	<b>Number of colleges/organisations</b>	<b>Numbers interviews per college</b>	<b>Total</b>	<b>Interviewees (6 per college)</b>	<b>Why ask these people? What do they represent?</b>
<b>College staff</b>	2	6	12	1 & 2) 2 x senior staff member with 15 - 20 years teaching experience, 3 & 4) 2 x curriculum managers 5 & 6) 2 x staff members with medium level of experience (5 to 15 years in teaching)	Knowledge on the skills shift, the skills needed now, and the drivers for change, how these are achieved in college, how suitable/unsuitable current qualifications are
<b>Key informants</b>	6	-	6	Lantra NFU NPTC Landex 2 x Consultants from private, commercial companies	Knowledge on the skills shift, the drivers for change and the skills needed now, and how these are achieved for the industry, by whom
<b>Totals</b>			<b>18</b>		

The interviews with college staff were carried out first and then interviews were held with the key informants after the initial data had been partially analysed and some trends identified. The following table provides details of the interviewees:

**Table 7: Details of interviewees****College A**

<b>Coded as</b>	<b>Job role</b>	<b>Gender</b>	<b>Years teaching</b>	<b>Sector</b>
A1	Assistant Principal	M	21	Agriculture
A2	Assistant Principal and CM*	F	15	Equine and Animal Care
A3	HOD Equine and Animal care	F	22	Countryside and Animal Care
A4	HOD Land-based and CM*	F	8	Animal Care
A5	Lecturer Agriculture	M	5	Agriculture
A6	Lecturer Agric Engineering	M	30	Agriculture

**College B**

<b>Coded as</b>	<b>Job role</b>	<b>Gender</b>	<b>Years teaching</b>	<b>Sector</b>
B1	Lecturer	M	28	Agricultural Engineering
B2	Lecturer	F	7	Equine
B3	College Director	M	25	Agriculture
B4	HOD and CM*	F	33	Rural Economics/enterprise
B5	HOD Livestock	M	21	Agriculture
B6	Director of Studies and CM*	F	8	Animal care

\* Curriculum Manager

### Key informants

Coded as	Job role	Gender	Years teaching	Sector
K1	Lantra	F	4	Countryside and environment
K2	NFU and former lecturer	F	9	Animal care and vet nursing
K3	NPTC, former lecturer	M	11	Agricultural Engineering
K4	Consultant and former lecturer	M	24	Fisheries
K5	Consultant and former Principal Member of Landex	M	36	Agriculture
K6	Consultant	M	3	Agriculture

In approaching this work, I made a number of assumptions:

- There are features of curriculum change, teaching and learning, and managing change embedded within the case study colleges that are identifiable
- It is likely that similar practices to those in the case study colleges will occur in other land-based colleges
- College staff and other informants are willing to discuss their views
- College staff and other informants have experienced change in land-based colleges and know varying amounts about the reasons behind the changes
- Colleges offer qualifications to meet perceived needs of their learners and have ascertained which are the most suitable qualifications to offer

### Analysis of the data collected

The analysis of data comprises three concurrent flows of activity as described by Miles and Huberman (1984): data reduction, data display and conclusion drawing or verification. In this study the data was reduced by selecting, focussing, simplifying, abstracting and transforming it as part of the analysis process in order to sharpen and organise the data to enable conclusions to be drawn from it. It was then displayed in an organised form to help permit conclusions to be drawn. The third part of the

process was drawing meaning from this analysis, noting trends, patterns, irregularities, and providing explanations.

### **Desk Study data**

The prospectuses and other information gathered about each of the land-based colleges were tabulated (Appendix 1) and the findings were analysed to identify trends. The analysis is presented in chapter 4 and discussed in chapter 5. The desk study analysis as the first research activity helped steer the direction of the semi-structured interviews.

### **Interview data**

Each of the interviews was recorded using a digital recorder, then transcribed manually by me to produce a transcript for each interview as a Word document. (see example in Appendix 4). The transcript was prepared as soon as possible after each interview in order to capture as much as possible from the interview while it was still fresh in my mind. Using coloured felt-tipped pens and 'post-it notes' and the 'find' feature of Word, I tried to 'tease out' some codes from the transcripts and some themes and issues that had been raised during each interview. I also tried to locate themes and to begin to cluster them to try to identify associations and emerging trends. This was helpful as a cumulative activity so that these emerging themes could be explored more thoroughly during the next semi-structured interview. The process was therefore an iterative one. Analysis of the data collected from both the survey of colleges and from the interviews resulted in several main themes emerging regarding the views from college staff about changes in the industry and how these have been reflected by colleges. This was achieved by following the methodology for data analysis proposed by Glaser and Strauss (1973) by which the data is analysed in a rigorous and structured way and thus the resulting theory 'emerges' from the data and is thus grounded in theory. A grounded theory consists of 'plausible relationships' as suggested by Strauss and Corbin (1998), among a set of concepts which are directly developed from data analysis. Theory in this sense provides a set of testable propositions that help to understand the social world of the land-based colleges more clearly, rather than provide absolute 'truths'.

The process that I used:

- Broad open coding and familiarisation with the data.
- Delineation of emergent concepts
- Conceptual coding using the emergent concepts
- Clustering of concepts to form analytical categories or themes
- Searching for core categories
- Core categories lead to the identification of core theory
- Testing of emergent theory by reference to other research and to social, cultural and economic factors which may be relevant to the study

Strauss and Corbin (1998) also said that grounded theory analysis requires 'theoretical sensitivity'. This they described as an ability to 'see' the research situation and its associated data in new ways, and to explore the data's potential for developing theory.

### **Validity**

To enhance the validity of the interview process and after I had analysed the data I tried to generate some themes from the data gathered. I then telephoned several of my interviewees (8) to ask for their views on these themes to see if they agreed that the themes identified were grounded in the data collected. All respondents were happy that the themes I had identified concurred with their own views when I spoke to them for a second time.

## Chapter 4 Research Findings

### Introduction

My research examined the provision of education and training in the specialist LBCs<sup>12</sup> and the many changes that they have undergone during the last 20 years with a view to establishing whether or not the changes mirror those in the industry and what has caused the change.

My findings confirmed that all the LBCs have encountered considerable problems during the last 20 years or so. Although the problems were of a similar nature, the colleges have dealt with them in slightly different ways. Some clear patterns have emerged from the analysis of the data.

The findings are presented in three sections:

- The college desk study results
- An overview of the case study colleges
- Interviews with staff from the case study colleges, and the key informants.

### 1. College desk study

The desk survey of the 32 LBCs was carried out in order to gain an overview of these colleges at the present time, to examine the curriculum on offer at FE level (up to level 3 on the NQF and QCF), mode of study and student profiles. The aim was to provide a contemporary picture of land-based education in the early twenty first century and to examine the extent to which these changes, if at all, mirrored changes in the industry.

The provision within the general FECs now offering some land-based subjects was also monitored numerically to ascertain the extent of the land-based provision in general FECs. Prospectuses for the general FECs were not examined in detail.

---

<sup>12</sup> LBCs refers to the 16 independent colleges, and 16 which have merged with a local FEC/HEI



The hard copies of prospectuses (29) that were collected from all colleges (LBCs and merged LBCs) were of a very high standard, printed on good quality paper. Three colleges did not have a hard copy of a prospectus to send out and relied on their website as the only source of information about the college. I suspect that hard copies are crucial for recruitment in geographical areas where computer access is difficult. The prospectuses were attractive, colourful, imaginative, engaging and designed to encourage prospective students to enrol on a course at a particular college. This contrasts with my own memory of the more dowdy prospectuses that were available during the 1980s.

All colleges had a website and these sites were also lively and colourful, often with photographs and video footage to showcase the college facilities and resources. In most cases prospectuses could be ordered online. Most websites contained illustrations of successful students and pictures of the college facilities and the campus to show all aspects of college life. All the LBCs offer some residential accommodation, which was emphasised on the web, as 'living-in' at college enables students to participate in early morning/late night routines on the farm or animal unit.

The prospectuses demonstrated the strong individual identity of each college and emphasised the way each college is positioning itself within a new and more competitive world. The evidence showed how flexible the colleges have become, and how extensive and impressive their specialised resources are. The importance of the employability of their students on completion of their course was the key message being promoted by colleges. A huge emphasis was also placed on the substantive links that have been established between the colleges and their local communities. Links also exist and continue to be developed, demonstrated and strengthened with the newer industries in the sector, such as equestrianism, to show how relevant and up-to-date their courses are. Consultations with industry were commonplace, with colleges keen to demonstrate how their courses fit current industry needs. There were also very positive messages to prospective students about the dynamic nature of the whole land-based sector, promising that it will provide an exciting and rewarding future career path for those choosing to enter it. Such comments included:

- We pride ourselves on providing a quality customer experience right from the very first time you speak to us (college A prospectus 2010/11)
- ...the Agricultural industry is currently relying on a workforce that is getting older , this will result in many good opportunities for new entrants (college B prospectus 2009/10)

From the analysis of the prospectuses, web pages and Ofsted reports, and numerical data gathered and summarised in Appendix 1, the following themes were identified as being the key issues emerging from this data:

- the curriculum
- college mergers
- LB subjects taught in general FECs
- learning support
- resources and
- student profiles (Quantitative data on student enrolments was very difficult to obtain)

Each of these are themes are now reported under corresponding headings below.

## **The Curriculum**

Until the early 1990s, all the colleges offered only agriculture and perhaps horticulture as their main curriculum area, with some colleges also delivering dairying and poultry courses. An important area of interest in this survey was the diversity and variety of the curriculum that the LBCs now offer as compared with 15 to 20 years ago. Within the LBCs, including those that have merged with their local FEC, the curriculum has become much broader.

Table 8 shows the range of curriculum areas and the number of LBCs offering each of these in 2009 when all 32 colleges (16 independent and 16 merged) were surveyed:

**Table 8: Curriculum areas and frequency in descending order**

Curriculum areas	Number of colleges offering
Agriculture	30
Animal Care or Animal Management	28
Floristry	27
Work Based Learning	26
Learners with Learning difficulties	25
Horticulture	23
Business Administration <sup>13</sup>	23
Equine	22
ICT	21
Sports surface and green keeping	18
Landscape construction	17
Garden design	16
Travel tourism and sport	16
Countryside and environment	13
Land-based Engineering	12
Weed and pest control	11
Golf turf and play	11
Driving - Fork lift truck/tractor	10
Forestry and Arboriculture	9
Construction	9
Land Management	9
Public Services <sup>14</sup>	9
Early Years/care	8
Motor vehicle	8
Veterinary Nursing	8
Countryside and environment	7
Food production	7
Gamekeeping	7
Blacksmithing	6
Aquaculture and fisheries	4
Saddlery	2

This table shows that from a very narrow range of subjects offered up to the 1990s, there is now a large range of subjects allied to the core subjects of agriculture and

<sup>13</sup> This has replaced farm secretary courses reflecting the broader office skills required in the farm office

<sup>14</sup> Courses designed to introduce and prepare students for work in the 'uniformed public services', which includes the armed services as well as fire, police, ambulance drivers etc

horticulture that are now being taught in the LBCs. A curriculum revolution has thus taken place during the last 20 years.

The following table shows the ranking of the main subjects in order of popularity during the period 2004-2007, on the basis of learner registrations:

**Table: 9 Popularity of subjects**

<b>Subject</b>	<b>Popularity</b>
Horticulture	most popular
Animal Care and Management	
Countryside	
Equine	
Forestry and Arboriculture	
Floristry	
Weed and pest control	
Land-based engineering	
Rural crafts	
Agriculture	
Driving (fork lift trucks, tractors)	
Aquaculture, fisheries, game-keeping	least popular

Source: Personal communication (Landex and Croxon, 2008)

So, although most LBCs still offer agriculture, it is no longer the most popular option.

I now intend to identify some key features relating to the new curriculum areas, by briefly discussing notable aspects.

Thirty of the colleges continue to offer agriculture, although the number of full-time students studying these courses decreased during the 1980s and 1990s, as reported by twelve of the interviewees. However, the number of students deciding to study agriculture is now increasing again as the agricultural industry now appears to be more stable. Animal Care and Animal Management courses have become popular mainly with female students, changing the traditional male-dominated profile to a profile with more female students studying in the colleges, as shown in table 10:

**Table 10: Male : Female shift in the student population**

	<b>M:F ratio</b>
1970	40:1
1983	25:1
2005/06	3:1

Source: (Lantra, 2007b)

There could be a number of reasons why more females now study in the LBCs. A key reason is likely to be the changes to the curriculum. A major reason for the introduction of courses in animal care has been prompted for example by the keeping of exotic animals in domestic situations. Exotic animals, such as snakes and chameleons, are being kept as a result of increased travel which has provided a heightened awareness of the kinds of unusual pets that can be kept at home. Also during the 1980s and 1990s an increase in disposable income enabled these more costly animals to be purchased. This has therefore, prompted a need for keepers of exotic pets to receive advice and help in the management of these animals, thus providing opportunities for LBCs, linked to people's hobbies.

Two colleges were instrumental in initiating courses in equine studies in the 1980s. Currently approximately two thirds of the colleges offer at least one equine course, which tend to attract more female students. There seem to be several reasons for the proliferation of equine courses. Parents usually want their children to study courses that lead to 'proper' qualifications and a career, so the introduction of, for example BTEC courses in Animal and Horse Management, gave a respectability to these subject areas. Other research evidence also confirms this pattern (White, 2007) where it was found that students were actively engaged in the choice of selecting their course and their parents were also actively contributing to the process, helping students arrive at a compromise solution (Crozier, 1998). The burgeoning of equine and animal care students coincided with a drop in the number of agricultural students as LBCs responded by diversifying in order to maintain student numbers and economic viability.

Television programmes such as *Animal Hospital* with Rolf Harris and *Vets in Practice*, also contributed to increased student registrations and encouraging students to follow their own interests and at the same time following their parents' wishes for

them to do something 'proper' which would enable them to get a job at the end of the course as described by Ainley and Bailey (1997). When the glamorous female celebrity Charlie Dimmock hosted gardening programmes on BBC TV in the 1990s this gave horticultural and gardening courses a boost, resulting in an increase in registrations.

Floristry has become a major subject, often attracting slightly older women who love flowers and want to start a business from home. Many of the courses on offer, for example the BTEC National Diploma in Floristry include business management skills, customer care and financial awareness skills to help support the establishment and maintenance of a business. These are in addition to the skills surrounding the practical needs of florists, for example, making and constructing floral arrangements for different occasions, such as weddings and funerals. These courses are not costly to initiate but the raw material flowers are expensive to purchase and this can be a barrier for some younger students.

LBCs also offer an imaginative curriculum for more local part-time students. Most LBCs try to generate additional income via a full cost recovery programme and so offer a wide range of courses, for example short courses for smallholders and hobby farmers, for example: *Starting pig keeping*; *Keeping hens at home*; and *Rural countryside skills*. For those working in the industry requiring specialist skills, courses have become available covering subjects such as: *Artificial Insemination*; *Hedge-laying*; *Butchery training*; and *Lambing*. For those who want to learn extra skills for general interest, there are courses such as, *Starting a farm shoot* or *Wood fired central heating*. Courses for part-time students are often for a day or two, or take place over a longer period of time, with classes held on, for example, every Saturday morning or Tuesday evening. These courses are often very practical in terms of their content and pedagogy. Full-time students tend to be attracted from a wider catchment area than part-time students.

Other areas of diversification include countryside and environmental studies, forestry, business studies, sport and recreation, leisure, hospitality, travel and tourism, and public services. These subjects (excluding forestry) are popular in urban FECs, and their uptake by the LBCs suggests that some students prefer to study in a rural rather

than urban environment but not necessarily to study land-based or rural subjects. Students may choose to attend a LBC instead of an FEC because the colleges are smaller, offering smaller student groups and enhanced personalised support from the teaching staff. Colleges have tried to develop niche markets and to build a reputation for themselves in this and therefore attract students from further afield rather than only recruiting local students.

Four LBCs have chosen to develop programmes in fisheries to run parallel to their courses in countryside management and game-keeping. One college in outer London and one in the West Midlands specialise in Saddlery, which is a very specialised craft. Walsall has been the world centre of the saddlery trade since the 19th century. In 1801, there were just four saddlers in the town. Throughout the first half of the 20th century, saddle making was seen as a dying trade with an ageing workforce, and by the mid-1950s only a dozen or so makers remained. This situation changed radically in the 1960s as riding became a popular leisure pursuit and demand for saddlery boomed. Today there are an estimated 50 saddlery manufacturers in the town, probably the greatest concentration in the world, making most types of saddles (Walsall Leather Museum, 2006). Courses in saddlery are very practical and lend themselves to a skill or competence-based rather than a theory based course.

### **Land-based colleges that have merged with other institutions**

During the 1990s, 16 colleges, relinquished their independent status and amalgamated with other local FECs or HEIs. Where LBCs have merged with their local general FEC, they have usually maintained their original campus and its specialised resources. In most mergers, the staff have been subsumed into the bigger college which has resulted in some difficulties as cultures have not been fully understood by either side. Often the new bigger 'parent' institution wants to save costs which can be achieved by merging the more generic functions such as human resources and finance. However the technical aspects of land-based education mergers have sometimes produced tensions. For example, practical education and training can be very expensive to deliver when specialised facilities such as a college farm and workshops are required. Some teaching, for example welding and sheep shearing, can only be taught in small groups as they are potentially dangerous skills to teach and

learn with huge health and safety implications so staff-student ratios are generous. These subjects have therefore become more impractical to teach as they are no longer cost-effective to run. Courses in construction, engineering, joinery and bricklaying have become popular additions to the LBC curriculum, often utilising the staff from the FEC to deliver these programmes.

### **Land-based subjects taught in general FECs**

Some general FECs started to deliver land-based subjects during the 1990s thus widening the range of colleges offering these specialised subjects. There are currently 41 FE colleges that now offer subjects that have historically been the sole preserve of the land-based sector. The main subjects that these colleges offer are animal management, floristry and environmental management (see table 11). These courses attract large numbers of predominantly urban based or urban fringe students. Set up costs are quite low; the most expensive aspect is for staffing and this is often supplied by part-time teachers who also run their own businesses. Animal Care courses demand specialist resources but these can be arranged through local zoos and wildlife parks.

**Table 11: Summary of land-based qualifications being offered by general FECs**

	Number of colleges offering land-based subjects:
Total number of FECs offering land-based subjects. Some offering more than one subject	41
Animal Care and or management	28
Floristry	26
Environmental management	21

Increasing numbers of schools now offer level 2 vocational qualifications including environmental and land-based subjects. Many of these programmes are delivered in collaboration with the local LBC.



## **Learning support**

The work within the land-based sector has altered dramatically over the last 20 years and has become very technical and highly mechanised, so there are limited opportunities for those without specialised skills. Long gone are the days of the country yokel who could only use brawn and not brain at work, doing menial work such as mucking out by hand-fork, sweeping, painting gates or lifting. The ability to read and write and do basic numeracy is important to enable workers to read labels, tractor manuals and signs, and complete basic calculations. Colleges are now focussing on these fundamental skills, which are often taught alongside practical agricultural skills such as handling animals and tractor driving. Increasing demands for traceability of foods requires all employees to have a reasonable standard of literacy.

Many LBCs now have a centre for students with learning difficulties and special needs, with registrations now reaching some 20% of total college registrations for some colleges (Landex and Croxon, 2008). The environment of LBCs tend to provide very suitable surroundings for these students as the colleges are set in pleasant rural locations and are small compared with an FEC so can offer a gentle and caring support for students and seem to exude low stress levels. Land-based subjects provide an ideal medium for these students, allowing them to learn, for example the responsibilities needed for feeding and general care of an animal and give opportunities for students to show affection and loyalty to the animals in their charge. Growing plants from seed is another opportunity for students to participate in activities and soon see the results of their work. This type of work requires a minimum of costly resources and yet offers a good overall learning experience for students.

## **Resources**

The physical resources available to a college are very important in order to support the delivery of specialist qualifications which can be very costly. Most of the LBCs have a college farm, though farm size varies between the colleges and ranges from between 15 to 2,000 hectares. In total about 12,000 hectares are farmed by LBCs. An

important function of the work of the colleges is to be able to demonstrate current commercial practice to students of agriculture, and for the farm to be commercially viable and act as a showcase for the local farming community. A college farm enables students to experience farm practice first hand and to learn the disciplines of routine farm work by participating in those on the college farm. The cost of teaching land-based programmes is high as activities such as tractor driving and cattle handling are dangerous so demand a high teacher to student ratio to provide sufficient supervision as students learn these skills. This has historically been reflected in the *per capita* payment to colleges from the funding authorities to run the programmes. Income from the Learning and Skills Council (LSC) central funds for individual LBCs ranged from between £2.5 million to £50 million where student registrations are between several hundred to several thousand per college (LSC, 2007). This compares with up to £145 million being paid by the LSC to support a large general FEC of 20,000 students.

LBCs are constantly seeking to reduce their dependency on central funds and generate income from full cost recovery courses which they do to varying degrees of success.

### **The student profile**

This section examines the mode of study and age of students who study at LBCs. There are now more part-time (PT) students compared with full-time students (FT), reflecting the need to provide for students who are earning and learning (see Table 12).

**Table 12: Mode of study**

	<b>PT:FT ratio</b>
1970	1:6
1983	1:4
2005/06	3:1

Source: (Lantra, 2007b)

The historical evidence (HMI, 1987; Smith, 1989) and that collected from college website information suggested that the average age of students in colleges is

increasing, but the precise details of this are limited. Colleges are keen to find this out, so when I was ordering college prospectuses online for this research, I was invariably asked for my age, which didn't take into account that parents might be doing this on behalf of their children. I usually left this box blank, but often there was no process to explain why I was seeking information and that I didn't want to skew individual college statistics by providing irrelevant data as I was not planning to become one of their students.

One of the challenges for the LBCs is to attract young people into the industry by presenting it as a dynamic and vibrant place to work. The majority of colleges have staff dedicated to providing and promoting school links and offer taster courses. Prospective students are thus introduced to the sector and life in college. Examples of this type of course include: *Taster Days*, and a *Food and Farming day*.

There is only a small proportion of ethnic minority students in LBCs, which has stayed fairly static at about 3% of the total student population (compared to about 14% in FECs (DfE, 2010)) who elect to study land-based qualifications. This is probably because the LBCs are located in rural environments whereas ethnic groups tend to live in urban areas. The type of agriculture that is studied in the Britain is for temperate climates and very different to the tropical agriculture in India or Africa, or the large size and scale as in America. Ethnic groups in Britain do not tend to find work on farms, although during the summer months Eastern Europeans help with fruit picking and harvesting, but this is manual labour rather than a career choice and suits those with a limited grasp of spoken English prepared to work for low wages.

During the 1980s and 1990s as the industry shed more jobs and profit margins became tighter, it became more difficult for 16 year old school leavers to obtain work placements on farms to gain pre-college practical experience. BTEC First Diploma courses were set up by colleges for those 'straight from school' and without pre-college practical experience. This move was one of heresy to some of the die-hards in agricultural education and also for those in practical farming. Farmers and colleges wanted students to complete a pre-college practical year on a farm, as observed by Norman (1999), but these qualifications resulted in more employable students at 17. This was because the learning was focussed, whereas the pre-college practical year

could be very variable in quality with students often being employed to complete menial physical tasks, but this was related to their previous experiences so inexperienced students often gained limited experience. The BTEC First Diploma qualifications often acted as the start of a progression route onto BTEC National Diplomas and beyond.

## **2. The case study colleges**

Conducting case studies on two LBCs enabled me to ‘drill down’ from the overview of all the colleges and focus on two colleges in more detail. In this section, I present an overall view of the two case study colleges. The history and development of each college is followed by a description of the campus, and my impressions of each college.

### **a) College A**

#### **History and development of the college**

College A opened in 1921 and so is one of the longest established LBCs in the country. Both the campus and the estate provide a pleasant rural environment. The college is situated close to major motorway networks and main railway lines, providing easy access from all parts of the country.

Since becoming an independent Further Education Corporation in 1992, the number of students has increased from 80 in 1958 to over 8,000 in 2010, and the courses on offer now range from pre-entry through to degree and post-graduate level. Originally, the college was delivering an entirely land-based curriculum of agriculture and horticulture until it branched out into environmental, countryside and equine education in the early 1990s. Since then, it has diversified further into construction and the allied industries. Staffing breadth and expertise have increased, and the buildings and specialist resources are very extensive. Decisions were made by the college and outlined in its 5 year strategy to maintain independence, grow student numbers and diversify the curriculum offer. The college is designated as a specialist LBC, and has a varied land-based curriculum (20 different curriculum areas). The most popular courses are in construction, planning and the built environment;

agriculture, horticulture, animal care; health, public services and care; and leisure, travel and tourism. There are over 8,500 students (of whom approximately two thirds are over 19 years of age) currently studying at the college (approximately 5,900 part-time and 2,600 full-time), and 132 academic staff. The college has a separate HE centre and a centre for organising partnership activities with schools. The college has links to other institutions but is sufficiently large financially to operate as an independent and autonomous college.

The college estate extends to 435 hectares, with a further 170 hectares rented as grazing for the farm livestock. Much of the estate is farmed commercially to provide agriculture students with realistic practical experience, but it also provides valuable learning opportunities for other subject areas. Countryside Management students use it for hedging, fencing and dry stone walling practice, tree planting, game and fish rearing, shooting practice, ecology-related activities, and water management experience. The equestrian students use it for riding, and the cross country course provides good experience for them both as competitors, and event organisers. Animal welfare students can gain experience of working with large animals, and construction students use the estate for building practice, and surveying.

The college's mission is for the college to be a:

Centre of Excellence for Education and Training for the Natural, Built and Recreational Environment by providing relevant and cost-effective vocational opportunities for everyone who will benefit from them. (2009 prospectus)

The college is a CoVE for its construction programmes and a Quality Improvement Agency (QIA) Beacon.

Around 70% of students come from the surrounding county. The college also attracts students from nearby counties and from a nearby new town. Amongst 16 to 18-year-olds, males outnumber females by 3 to 1, but amongst adults the proportions are fairly even. The percentage of students belonging to minority ethnic groups is 6%, reflecting the college's catchment area. As we saw above, the national average for LBCs is 3%.

The college prides itself on the extensive practical facilities available to students. As it specialises in vocational programmes, strong emphasis is placed on preparing students for work. As the prospectus (2009) states:

*...all courses include some degree of practical skills development, though the proportion varies according to academic level*

This college has an open access policy to recruitment and matches students to programmes on an individual basis dependent upon prior experience. In 2008, students achieved levels of success that were above the national benchmarks. Success rates were defined as the proportion of learners who start the course and complete the full qualification.

### **Description of the college**

The college comprises a series of traditional buildings which form the centre of the college and which house the administration departments and senior management team of the college. Each curriculum area or sector has its own location on the campus. Several sectors utilise refurbished farm buildings, for example the Learning Support and Management centres. Other sectors are located in new buildings, for example the Higher Education Centre. Wherever possible each curriculum area runs a commercial business that provides real work experience opportunities for students together with realistic business data for students to use in the classroom and during project work. The commercial departments of each sector are adjacent to the teaching department for that sector. The garden centre for example is close to horticulture, the sport sector has a large commercial sports centre, and animal management centre with veterinary nursing operate a hydrotherapy pool for horses together with dog grooming facilities. The commercial operations are complemented by well resourced workshops and practical areas, where students can develop practical skills in a safe and structured environment.

Close contact is maintained between the college and employers, via:

- industrial liaison groups to consider and consult curriculum matters,
- hosting industry-led events such as horse shows and sports meetings
- employer forums to update and train employers

These enable college staff to further understand the needs of the industries and what is expected of potential employees. Students are well prepared for the job market post-college with normally about 98% of students successfully securing a job as they leave college.

The main site is linked by a footpath to the separate area of the campus, which is the base for agriculture and countryside, horticulture, animal welfare, furniture and design studies, construction, and floristry courses. The centre has a range of high quality teaching rooms together with workshops and other specialist resources. Also located on this site are the garden centre, Veterinary Practice and animal therapy units which are open to the public throughout the year. All these resources exist to provide practical training for students in a realistic commercial environment. The Learning Resources Centre (including library and IT suite), HE centre, residential accommodation, social centre (including common rooms, bar and coffee shop), student welfare centre and central dining room are all located on the main site, as are the college's central administration, student services, shop and transport office.

There is a wide range of sports facilities at the college including two sports halls, complete with fitness suite, free-weights gymnasium and climbing wall, and a range of specialist artificial and turf pitches catering for football, hockey, netball, rugby and tennis. The sports centre operates seven days a week throughout the calendar year and is heavily used both by students and by local sports clubs and associations.

A further area of the campus is the base for equestrian studies, sports studies, and rural skills courses, and is also the location of the dairy unit. The equestrian centre operates commercially to provide students with credible practical experience, and a new international size indoor riding arena and livery yard opened in the autumn of 2006. The college hopes to offer training facilities for the equine parts of the 2012 Olympic Games.

One area of the campus houses the college's commercial farming activity and provides buildings for lambing, calf-rearing and grain storage. It also houses the college's management centre, which provides a wide range of courses for local industry and commerce. Specialist mechanisation, welding and arboriculture workshops, together with mechanical handling resources are located at the centre and

offer training opportunities for students from many subject areas. Game and fish rearing facilities offering specialist training opportunities for countryside students are located nearby. The various parts of the campus are linked by a hard cycleway and a shuttle bus service operates across the campus throughout the day.

A purpose built centre, close to a village in the south of the county, provides programmes in the main construction trades of brickwork, carpentry and plumbing as well as animal welfare. There are fully equipped workshops with facilities similar to those at the main college site. To support learning there is an IT suite with twenty four computers and a learning resource room housing learning materials, both paper-based and electronic versions as well as additional computers. Catering facilities are available on site, and the college's transport network serves the centre.

My overall impressions of the campus following several visits to study it, were that it was neat, tidy, clean, and well organised. The main site is located on the edge of a village, which provides students with easy access to the shops, post office, garage, pubs and health centre which are all within easy walking distance.

Talking to staff informally and during the interviews it was apparent that the college is clearly structured and well organised. A clear line of command operates and as such lines of responsibility are clear, the assistant principal explained:

I know exactly what I am responsible for and where my responsibilities begin and end. We negotiate at the 'edges' where things might be a bit grey, but often that's to make sure all is well rather than anything else. (A2)

It appeared that the staff were working within a clear management framework, which is probably a function of the large number of staff (132) and the disparate layout of the campus, and the need to create clear lines of responsibility. The management structure caters for academic and administrative functions separately thus following the description of Ainley and Bailey (1997) of a new managerialism style of college management. This is also supported by the work of Hyland (2003) who explained how since incorporation, FECs have been managed according to market principles, resulting in the managerial, academic and curriculum, and administrative roles being separated out and dealt with by different staff in different but focussed ways.



Opportunities for staff to develop professionally were good. Several staff were enrolled on post-graduate programmes in either their vocational area, for example three staff are studying for PhDs in their field; other staff are pursuing a PGCE qualification and two are following an MEd course. The college is well supplied with appropriate resources, and senior management supports both the staff and the students' needs.

## **b) College B**

### **History and development of the college**

The College Estate was first acquired by a wealthy family in the late 17th Century and it remained in this family's possession until 1872. The estate village was built in the 'picturesque' style. Following its sale in 1872 the new owners refurbished the village in the same style and many houses now bear this family's crest with a date within some ten years of their arrival. The new owners also demolished the original house and built their mansion, which now forms part of the college, close to the village and approached by a drive through parkland. The college was founded in 1944 by a trust set up by the family. It was at a meeting of the estate's tenants and the trust, when the founder stated:

I am giving back the whole property and money to the memory of the family who loved the place...in the form of a Trust for a College for Youth, under the Board of Education ... We shall take boys leaving schools and train them in the Science of Aviation, Agriculture and Forestry, both in research and practical work. The boys are to have equal opportunities for a first class training and we all have the highest ideals for the place and only turn out the very best. (Desmond, 1982: 56)

On the 1st September 1988, in what would be the first of three mergers, the academic affairs of the college, including all responsibility for teaching, were taken over by a local university, although the real estate remained the property of the family trust with the buildings which form the college leased to the university for a peppercorn rent. This resulted in a situation where, although the teaching was handled by the university, the college farm remained the property of the Trust and its use for educational purposes was the subject of a complex agreement. The farm manager was

responsible to the Trust and not the university. The use of the farm by the college is dictated by an agreement between the college and the trust.

The origin of the college meant that it was not associated, either administratively or financially, with any one particular county and, as a national college, it was not dependent on drawing students from one particular locality. It has, however, always had a regional identity with the eastern counties, from which it has always drawn many of its students. This was particularly due to its now historic one year 'Farming' course which, as it had no formal entrance qualifications, tended to attract the less able sons of the region's farmers.

The county in which the college is found is predominantly arable farming and the majority of farms in all the eastern counties are owner occupied and a large proportion worked by the farmer. It was the area of the country chosen by Newby for his classic sociological studies of farm workers *The Deferential Worker* (1977) - and farmers - *Property, Paternalism and Power* (1978). He describes the changes in the counties' agriculture since World War 2 and contrasts it with the pre-war situation when:

...thousands of acres of good, productive arable land lay unfarmed, and degenerated into wasteland, when fences were pulled down to be used as firewood (Newby, 1978: 48)

Given this concentration on arable farming, it is, perhaps, surprising that the most famous principal of the college in the days when it was independent was the author of the country's standard textbook on dairy farming (Russell, 1991). He had, however, previously been the Royal Agricultural College's Vice Principal and Farms Director at the time when that college was establishing an international reputation in the feeding of dairy cattle.

College B has in the past concentrated more on the managerial aspects of agriculture, despite the statement made by the estate owner when inaugurating the Trust, of the use of the farm for practical training. Although only two members of staff remain from this era it was felt that the merger with the university had been unsuccessful because the university had failed to understand the direction of the college and had

encouraged it to develop into more academic areas, whereas the local need was perceived to be for school leavers. This had created tension and hampered college growth.

In 1996, ties with university were severed and a different contract was made with a large LBC offering both FE and HE courses. This was the college's second merger. Significantly, the Principal of the new partner college had been the Vice Principal of College B ten years ago, and recognised the potential of a union between the colleges in spite of a geographical difference of 70 miles. This partnership became official in 1998 and altered the nature of the college from one holding a national position offering courses for farmers' sons living and farming mainly in East Anglia to one geared towards recruiting students locally. A shift can be identified, the college moving from a more managerial non-practical style of teaching to a broader more practically-based curriculum for younger students, including recent school leavers. Average student age on entry dropped from approximately 20 in 1990 to about 16 currently, and more emphasis has been placed on encouraging links with local schools.

During both mergers, maintaining the college name as a 'brand' name was an important factor in the merger talks as this was perceived as being an important feature of marketing and of the maintenance of the college reputation within the local farming community, in spite of the college branching into other curriculum areas. The animal care and equine industries were keen to be associated with the successful name of a former agricultural college and saw this as a marketing opportunity for them also.

At the time of this study, the college had 800 FT students with 3,000 part-timers and 29 staff. The majority of these students were following non-advanced courses up to level three, 95% of the students being recruited from local towns and villages. The remainder followed HE courses. The partner college since 1998 (the second merger) has been a medium sized further and higher education institution with substantive FE provision. It specialises in land-based education, and is itself a partner institution with a local university. Both campuses include substantial estates and a range of specialist land-based units, including farms, animal centres and horticultural units. The social

and economic environment around both campuses is favourable, with lower unemployment rates than regionally and nationally. The local populations are predominantly of white British heritage.

College B offers FE provision in nine sector subject areas, recruiting most students in land-based subjects, sports studies, engineering and preparation for life and work. The college provides work-based learning in land-based and engineering subjects. Students attend the colleges from the surrounding locality but its specialist provision recruits students more widely from the East of England and South Eastern areas.

The college's mission is:

...to serve the rural economy, the environment and related industries both nationally and internationally through the delivery of high quality education, training, research and reach-out in a sustainable way.(college prospectus 2009/10)

The college is part of a CoVE in horticultural technology with a local FEC.

### **Description of the college**

This college campus has a substantial estate of 2,000 hectares which are farmed commercially and a range of specialist land-based units, including livestock centres for a beef herd, pedigree pigs, and a horticultural unit. 40 hectares are retained exclusively for student work where the farm becomes a green classroom. The college is situated on the edge of a small village which has limited amenities, a pub but no shop, and it is approximately five miles from a market town which is well equipped with shops, places to eat and leisure facilities. It is situated 70 miles from its partner college which has easy access to the local town's facilities of shopping and sport.

The campus feature which is most striking as one approaches the college is the old family home or mansion, built in 1890. It is situated in the parkland surrounding the college buildings. The mansion was originally the home of the owners and not designed for student traffic. Stringent fire regulations mean that its use is limited. Also, as the building is partly furnished with original fittings, the wear and tear would

not be acceptable. It is however used for special functions, dinners and musical events and can be hired for weddings.

The college administration department is situated in a building close to the mansion, a 1960s building which is architecturally unremarkable. Each college department is accommodated in a separate area across the campus and where staff have their offices and resources are located. For example, the staff and animals comprising the animal care centre are located away from the main mansion, as are the science departments and machinery departments. In addition there is a well equipped Learning Resource Centre where students' study needs can be supported via computer terminals and where a good selection of specialist books and periodicals are housed. My overall impressions, following several visits to the college, were that it is a busy campus with plenty of student traffic, but it seemed a bit untidy and tired, with some litter, and the buildings were in need of some general maintenance. Talking to staff in the college informally, I gained the knowledge that the college has a fairly traditional departmental structure which has evolved rather than been designed to meet current educational or business needs. The majority of staff had been recruited directly from their industry and rated themselves as vocational experts rather than teachers of vocational subjects. They are qualified in their vocational field and many have or are studying for teaching qualifications but only two post graduate qualifications (an MA and MEd) were noted amongst 29 staff members. Staff recruitment tends to be local and so limits the field of applicants. This is because the salaries are low as many teaching staff are paid as instructors or technicians. The pay scales of the main college penalise the salaries of non-graduates teaching FE level students.

Senior staff, when interviewed expressed the difficulties of getting some staff to see themselves as teachers first and vocational specialists second, although the importance of the vocational expertise is well recognised. Staff perceived themselves as 'second-class' in relation to the staff at the main campus, where the emphasis is towards HE, and not FE.

## **Summary**

Both colleges now offer a wide range of programmes associated with agriculture and rural life, such as equine and forestry. Each college has reacted to changes in their local circumstances in different ways. Both have now widened their curriculum to meet local needs and on a scale comparable to that of most FECs. College A has grown substantially during this process and maintained its independence. College B has also grown, but was only able to achieve this via a merger with first one and then another partner. Both have adjusted to a changing market within the land-based sector and remain viable. They both demonstrate a huge diversity of activity and complexity and work closely with their local community.

Towards the end of this study, College B entered into its third merger arrangement, this time with a local general FEC with no experience of delivering LB subjects. Clearly, further research would need to be done to monitor the impact of this merger, but it is possible to speculate that the incoming FEC is keen to utilise the extensive resources and pleasant rural location of college B to enhance its own business activities in hospitality and tourism.

## **3. Interviews with college staff and key informants**

In this section, I present the findings from the interviews under a series of headings which correspond to the broad areas that I identified during the analysis of data. The data was coded and the table showing the coding framework can be seen in Appendix 3. Numbers in brackets (xx) correspond to the number of times a point was noted by the interviewees and recorded in the coding framework.

Where quotations are used I have referred to interviewees from college A as A1, A2 etc and from college B as B1, B2 etc and from the key informants K1, K2 etc.

The findings are presented in three main sections:

- Why did the land-based colleges change?

- How did the colleges change? - this section includes commentary on mergers and partnerships, curriculum and qualifications, teaching and learning, the problems identified and opportunities created
- The consequences of change

### **Why did the land-based colleges change?**

When asked about the changes in the LBCs, 16 of the 18 interviewed identified industry driven change as the over-riding reason. The agricultural industry changed and diversified in response to its depressed state, so the LBCs had been given some direction in order to attempt to respond to the needs of the industry.

The LBC changes coincided with the depressed state of the agricultural industry which meant that colleges were vulnerable to closure because of their falling registrations. This vulnerability meant that colleges were also ripe for change. Student registrations reached an all time low during the late 1980s (7) and so colleges experimented with curriculum change to try and keep student numbers up.

One key informant, an ex-lecturer and now representing the NFU, explained:

...the rolls were at their lowest during the mid 1980s. Colleges tried to find ways of making up the numbers with limited success. It was that that paved the way to really building up numbers again (K2)

A second major cause of change was incorporation (12) which took place in 1993 as colleges were moved from local authority control to be independent. This change also resulted in a changed national funding regime (11) which was less favourable for LBCs. Incorporation did, however, enable LBCs to respond in ways that helped them to remain viable and sustainable.

The other factors causing change in LBCs are very much interrelated. The interview process helped to tease out the details, and the implications of the changes for LBCs, which are explained in the following sections.

## **Industry driven changes**

Sixteen of the interviewees said that it was the slump within the agricultural industry that caused LBCs to suffer reduced student recruitment and poor take-up of their existing programmes. During the 1990s, the agricultural industry suffered several crises as described in chapter 2. These circumstances also resulted in farming receiving bad press which deterred new entrants to the industry. Farm businesses were encouraged by a change in the direction of EU policy away from production agriculture and towards the introduction of wildlife habitats and the conservation of woodland and hedgerows. Government financial support arrangements had thus changed from being production orientated to conservation-led.

Twelve of the interviewees said that, on the whole, the public had been critical of this process and felt that farmers received money to do nothing. However, a survey conducted for and presented at the Oxford Farming Conference in 2009 (Denney-Finch, 2009) showed that 88% of those surveyed agreed that farmers deserve the full support of the public and 78% perceived farmers to be very hard working. Impressions about farmers gathered from the survey also included them as being seen as down to earth, professional, not particularly elderly but not well paid. It would appear that perceptions have changed in favour of the farmer.

The downturn of the agricultural industry during the 1990s meant that students were choosing not to enter farming as a career (9) even if they came from a farming family, and opting to move away from agriculture to do, as one lecturer put it:

...to do something else that had a future (B5)

Ten of the interviewees with ten or more years of teaching experience quoted examples of farming families whose offspring were no longer interested in continuing the family business, and urban based students were not applying for places either as prospects within agriculture looked grim. The farming industry was forced to diversify in order to remain sustainable, so farmers were turning buildings into livery accommodation for horses, opening up fishing lakes and growing a range of new crops, for example lupins and oilseed rape. One ex-lecturer said:



...there was a spectacular diversification away from agriculture (K3)

In addition small farms were being amalgamated into larger units to give the benefits of economies of scale and be more cost effective to run. Mechanisation was increased to help offset the reduction in the current labour force.

### **Government driven changes**

There were two government initiatives that impacted heavily on all colleges simultaneously. These were the introduction of incorporation for colleges, which prompted a major turning point for colleges (DfES, 1992) and secondly, the changes to the Ofsted inspection arrangements (FEFC, 1993). Incorporation meant that colleges became independent and responsible for their own financial arrangements and business activity, and bought services in from the local authority or preferred suppliers rather than being dependent on these being provided centrally (12). One key informant, an ex-principal, explained:

...this was a jolly good thing for colleges, although we didn't always realise it at the time. (K5)

The outcome of incorporation for LBCs was that they were given a greater freedom and flexibility to demonstrate a more entrepreneurial approach to the running of their colleges (9). This was apposite as it coincided with a reduction in student numbers in the LBCs following the decline of the agricultural industry, and it enabled imaginative and novel approaches to revitalising LBCs to be initiated. Part of this rationalisation process also meant that funding arrangements for colleges changed, as a new national funding model was introduced. Agricultural colleges had, up until this point enjoyed generous funding arrangements as it had been accepted that practical subjects were more costly to teach and assess, and that agricultural subjects were very resource greedy. The higher funding for practical subjects was gradually curtailed after incorporation, which meant that agricultural colleges not only had a reduced income (10), but also suffered from falling student numbers (12), at a time when the key industry that they supported was depressed. Changes to funding were cited as having an impact on the curriculum by three of the more senior interviewees. Specialist curriculum areas received reduced funding over a period of time by a

process of 'tapering'. This meant that colleges were forced to reduce their costs which inevitably meant reduced contact time with students. College A's assistant principal said that students are encouraged to participate in all opportunities available to them in the college at all times, at no real cost to individuals, but a charge for the college, spread over many students. She said:

We now have on paper over-delivery of £1.2 million as we offer a framework of learning opportunities - key skills, work-skills, student support as we follow an educational prerogative to develop the whole student. (A2)

From delivering 30 hours of contact time per week in the 1980s, colleges have been forced to reduce this to about 16 hours (7), which meant that the time allocated to practical training was reduced (7). Also colleges had used student groups to carry out work on the farm and estate to gain practice and experience, for example planting out bedding plants and pruning roses and trees. This type of activity does not now take place and is possibly responsible for the neglected appearance of some of the colleges, including College B.

In the main, teaching staff showed minimal interest in government educational policy, being more interested in industry related policy and quality teaching (9). As the interest in courses in agriculture fell markedly, college principals were forced to consider the future of their college. Interviewees (7) explained that the atmosphere in LBCs during the early 1990s was tense, as strategies were revised and tough decisions were made to try and keep these specialist colleges viable.

During the early 1990s, the Ofsted inspection process also changed and more emphasis was placed on quality of teaching and learning with the learner central to the inspection process. Eight interviewees cited this as an important driver of change in the LBCs. A *Common Inspection Framework* (Smithers and Robinson, 2000) was introduced by Ofsted, which focussed on the colleges providing evidence that teaching and learning were suitable for the needs of their learners. This was important and had a big impact within a culture which existed within agricultural colleges at this time. Staff in colleges saw themselves primarily as enthusiastic practitioners in their field, and paid limited attention and interest to the need for teacher training and the quality of delivery (12).

Several staff (8) felt that the introduction of this revised inspection process did much to improve the quality of teaching and learning in the colleges. One lecturer said:

The HMI<sup>15</sup> visits were shallow and only gave us a short report, and quality assurance was ...well forget it. (B5)

Also the improved quality assurance from ABs was responsible for improving standards (5). Teachers were forced to address the requirements of the inspection and AB processes. One HOD said:

We saw a remarkable change with the introduction of the new Ofsted arrangements, suddenly the things I had been banging on about for ages became important for everyone (A3)

### **How have the colleges reacted to the need to change?**

Principals and senior management teams in LBCs were faced with a situation of drastically falling rolls resulting from a depressed industry, together with the desire to continue to support and boost the agricultural industry. Their aim was to try and maintain their individual college as a viable business in order to offer agricultural training and education as it had done for the last 40 to 50 years. To some extent there was an emotional element to this process driven by local loyalties and staff and student commitment. An ex-principal explained:

I don't think the colleges really wanted to change initially as it was a cosy and comfortable existence they had, but it was do or die! They just wanted to be agricultural colleges as they always had been (K5)

There were three options available to principals. First, they could aim for college growth (14), which meant diversification and a broader curriculum (11), or they could try to amalgamate with a local FEC or local HEI and benefit from economies of scale (8). The third option was for LBCs, was to close, and eight have done.

---

<sup>15</sup> This lecturer used the term, HMI (Her Majesty's Inspectorate), but actually meant Ofsted which replaced HMI some years ago.

In order to increase student numbers the majority of colleges decided to widen their curriculum offer to attract students with different qualification requirements and who wanted to study subjects that were more broadly land-based (16) rather than purely agricultural. One Head of Department explained:

There was nothing for it – if we wanted to survive we had to grow the college I was in. We had a target of two new courses each September, it was quite tough. (A4)

Increasingly agriculture was diversifying so the colleges wanted to follow suit, and offer appropriate training in the areas of the new farm enterprises.

The aim of most of the colleges was primarily to remain as an agricultural college (5) and to offer curriculum subjects that were routed in subjects allied to agriculture and horticulture. This was forecast by an ex-principal, Len Norman (1999), when he reviewed land-based education 12 years ago:

...the general view of most principals and governors was that if at all possible colleges of agriculture should remain as separate institutions thereby providing specifically for education and training for the land-based sector. (p163)

As described in chapter 1, animal care and equine management were some of the first areas which colleges diversified into, followed by floristry, fish husbandry, forestry, environmental conservation, countryside management and woodland skills and arboriculture. Some colleges have further diversified into sport, outdoor education, public services and construction and engineering, thus broadening enormously the work of the college, yet still keeping a rural focus and ensuring that specialist resources were fully utilised. A main objective had been to increase the variety of the curriculum which resulted in increased student numbers (16). These new programmes attracted different groups of students, and the overall culture of the colleges changed dramatically. There were shifts in the gender and age profile of the students, resulting in a more balanced male: female population and a wider age range of students from 14 plus, to students of retirement age and beyond, and many more local students attending part-time courses.

Colleges diversified their curriculum, but this curriculum shift was not without its problems as one Head of Department explained:

As an agric<sup>16</sup> left he was replaced by a horse person. He wasn't the same, and we knew it would never be the same again. (B4)

Another lecturer in agriculture commented:

It just didn't seem right to have all this horsey stuff taking us over...they weren't like us – so it was all very different – and as for the students – they were so very different (A6)

Staff who normally taught agriculture reluctantly accepted that this curriculum shift was necessary (8) but did not like the erosion of pure agriculture. There was a perception amongst senior managers that staff could easily teach other things, by perhaps a few cursory changes to their notes. One participant, an ex-lecturer in agriculture, described how a colleague was telling students about how to revive an injured duck, launched into how to do this and then said:

Well ...(pause) ...but if it were a lamb this is how you would revive it... and he went on to explain how this would be done ...for a lamb! (K5)

Worries were expressed at the time about the student experience – was what was on offer good enough? Several participants (6) commented on this saying that often the first couple of years of a programme were often poor as the college 'got its act together'.

Concerns were voiced by the interviewees (6) who had an agricultural background, about the job prospects for many of the animal care students leaving LBCs. One lecturer in agriculture said:

I really don't know where they will get jobs and this seems immoral to train them and for there be nowhere for them to go. (B3)

In contrast, a lecturer in equine and animal care said:

---

<sup>16</sup> lecturer in agriculture

There are problems with jobs in agriculture – it is perceived as a very old fashioned industry, but there are heaps of jobs in animal care – they just need to be imaginative (A3)

The assistant principal, with an equine and animal care background was philosophical:

They complete a level 3 qualification and they can go into say banking. It's an indication of what they can do (A2)

The latter comment perhaps suggesting that the employment opportunities in the animal care sector are limited.

Diversification of the curriculum, and the associated and linked changes, has led to the majority of agricultural colleges deciding to drop 'agriculture' from their name, becoming known as a more generic 'land-based' college to reflect their new identity (10).

### **Creation of mergers and partnerships with other institutions**

The agricultural colleges have always been small in comparison with general FE colleges, each usually only recruiting a few hundred full-time equivalent students onto a few very specialist courses, compared to their local FE colleges who recruit a few thousand students and cover a wider curriculum. Where it was not possible to remain as a single autonomous college the decision to consider amalgamating with another institution was made (9). Evidence from the survey of colleges showed that 16 LBCs have remained as independent colleges and have grown considerably in size (11), 12 LBCs have amalgamated with larger local FECs with varying degrees of success, and four LBCs have linked with local HEIs.

In this study College A has remained an independent college and College B has merged on two separate occasions, as explained earlier. Advantages of a merger were often the ability to use the main FEC's resources. For example, being able to use the main FEC's Human Resource (HR) department was mentioned several times (5) by interviewees as being a major gain. This may have been associated with the need to consult HR staff during mergers over conditions of service and other matters.

Agricultural colleges in the past were rarely large enough to support a separate HR department.

Mergers have often resulted in a loss of culture by the LBCs as the colleges have struggled to retain their original identity (12) and yet increase student numbers (14) and college size (11). Maintaining the LBC name or its 'brand' was considered crucial in a merger situation (10) as local farmers and students identify with their local college. College B managed to cling onto its brand name during both mergers which staff felt helped it keep itself known locally. Large discrepancies in approach were identified by the interviewees (8) between the HEI or the FEC, and LBC as the original aims of both parties were usually very different, and the colleges and universities have not always fully understood the ethos and 'raison d'être' of a small LBC. One animal care specialist told me:

It was awful for lots of colleges as no-one seemed to understand what we did, we were 'lucky' as at least our college<sup>17</sup> was land-based but they weren't that keen for us to join them. They saw us as a drain on their funds ...and maybe we were at first! (B6)

Some FECs and HEIs were attracted into a partnership with a local LBC by location (rural and pleasant), resources (plentiful and varied) and the different overall ambience (relaxed, quiet and unusual) (11). Mergers were not always considered to be altruistic, but they provided an opportunity for FECs and HEIs to develop in new directions previously untapped by them, and to increase their own student base in new curriculum areas. Senior managers often moved into the more traditional LBC main college buildings, and departments such as Catering widened their approach with sumptuous meals available in new restaurants set in pleasant rural surroundings.

Some LBCs have created partnerships (7), but have still retained their independence, for example with an HEI to validate HE programmes as a means of increasing student numbers (7). Creating HE courses in land-based subjects thus expands the available progression routes for students (16) studying the FE courses. College A decided to expand and move into HE and linked up with their local HEI for validation purposes. A head of department explained:

---

<sup>17</sup> the one they merged with

We immediately increased our student cohort by 250 students as a result (A4)

Seventy percent of HE in land-based subjects is now delivered directly in LBCs and not in HEIs, as more progression routes have been developed for students (personal communication from Landex). Most of the LBCs have an arrangement for validation of degree courses with a local HEI. This demonstrates an upward shift in the qualifications offered by LBCs since incorporation, providing more opportunities for students.

Within or outside any merger arrangement partnerships have been created on a more temporary footing for other specific purposes. These partnerships have included school links programmes with local schools and the appointment of school links staff to organise and promote careers and similar events and offer liaison with Connexions, the careers organisation. This is important to ensure that careers officers are correctly informed about farming and the associated land-based industries and are able to advise young people adequately. In the past this has been a longstanding problem as careers officers were ignorant about work in the agricultural and land-based sectors (5), and of the courses that LBCs offered and consequently were unable to offer correct and up-to-date advice to school leavers. Some interviewees (5) said that they felt that external careers staff actively discouraged young people from a career on the land because of their own prejudices and ill-informed concepts of the work. Most colleges hold careers staff briefing days in college to introduce them to the college and the industry, with pleasing results. As one participant put it, 'if you can't beat 'em ...get 'em to join you!' (A4)

Several interviewees raised the new Environment and Land-based Diploma for 14-19 year olds (9), which launched in September 2009. The college director at college B enthused:

...we're really quite excited about the new diploma (B3)

However, a lecturer in agriculture had reservations:

...I'm not sure about this diploma...remember GNVQ? I think it could be a bit too general...(B5)



Consortia have been established between many of the LBCs and schools for the Diploma, but concerns were voiced about the lack of suitable resources in schools to deliver it (5). Staff in both colleges spoke of existing good links with local schools and in one case a teacher from the school bringing a minibus full of students to the college each week to experience 'proper' farm facilities and the depth of college staff expertise. Even before it was first introduced in September 2010, College B expected that over 100 students per week from several schools would study the Diploma with them, however in reality only 11 were recruited.

Several staff (9) spoke of the issues surrounding the shift from teaching 17+ year-old students towards 14+ year-old students. In particular, they mentioned the lack of teacher training preparation for staff, and their possible disinclination to teach 'school kids' as they had chosen to teach older students. However both colleges reported (10) that their staff had 'grasped the nettle' and these schemes were very successful and well received by the school children, with good feedback from the participating schools. Partnerships can be lucrative for the colleges (3) as funding can be drawn down to support the process.

### **Curriculum changes**

During the 1950s to the late 1980s the qualifications offered in agricultural colleges remained fairly stable and predictable. They were very practical courses, popular and well respected by employers, students and parents. The perception was that employers felt that employees were well trained, as one Head of Department explained:

They (employers) came back for more students with this type of qualification time and time again (A2)

In order to accommodate day release students, a number of out-centres <sup>18</sup>were established by most of the colleges in a variety of situations such as school classrooms, refurbished barns, and some were custom built. College A has been particularly keen on this approach and now has several out-centres. This was because

---

<sup>18</sup> provision local to students to reduce transport problems in rural areas

the majority of rurally-based students were very parochial and would not have attended college if it meant a long and tedious journey to their classes. Fleets of minibuses are now used to bus students into colleges from train stations and bus terminals as most of the LBCs are not on a public transport route. This effort must be maintained as LBCs are still coping with the historical lack of demand for training by the industry, and as farmers are not required to have any qualifications to start farming (3), there is no pressure from the industry to gain qualifications.

### **Conceptualising the management of change**

Colleges seemed to manage change by following one of two main models. Some developed from their areas of curriculum strength, a centre periphery model as identified by Schon (1971) whereby ideas were generated centrally from areas of expertise and then disseminated to the outer parts of the system. This approach is similar to Havelock's (1971) problem solving approach whereby the user articulates a need which is translated into a diagnosis followed by the generation of ideas and formulating a solution. College A had a successful Veterinary Nursing unit and decided then to move into animal care and then equine for school leavers. They followed these by offering short, but very specialist courses for CPD for those in the industry needing to be up-skilled, for example veterinary nurses working in veterinary practices learning about hydrotherapy for horses and dogs.

Models for managing change were also identified by Groby (1989) who emphasised the increasing importance of teacher focussed models and a movement away from reliance on outside experts for curriculum change. New areas of the curriculum were sometimes introduced gradually, often initiated by the interest of a member of staff who predominantly taught agriculture. One lecturer told me:

We had this chap on the staff who loved birds and the countryside – he offered to start a course in Countryside Management and so he rounded up a few others who said they could teach similar things, they were dead keen! It was very popular and we had 14 students first time round. (A1)

Another lecturer said:

We had a junior lecturer who was mad on fishing he helped us set up a Fisheries Management course and it went very well. (B2)

College A moved from delivering horticulture to turf management to golf course management and then offered golf as a sport, they then offered other sports building resources as they did this. Their sports area is now a large college faculty.

Interviewees gave many interesting anecdotes relating to starting up new areas in their colleges, summed up by an Assistant Principal as:

It was a bit of a wing and a prayer job actually, a leap of faith if you like, we were scooting along by the seat of our pants, but we did it! (A2)

College B had tended to introduce courses, without sufficient market research, industry consultation or without a needs analysis being carried out (3), a more 'knee jerk' approach to managing change. The College Director told me:

We tried a few things that we thought would work – I don't think our thinking and planning were good enough (B4)

They were panicked into encouraging a growth in student numbers in order to survive and started courses with minimal preparation or expertise. The College Director continued:

We flirted with various subjects, we tried everything and then eventually settled into what is now our core curriculum (B4)

College B introduced some equine courses as the 'thing to do' but without sufficient resources, using the local riding school for the student riding lessons and horse management lessons. These arrangements were unsatisfactory and unsustainable as riding school staff were inexperienced in teaching skills beyond pure riding. More recently excellent equine facilities have been established at the college. Teachers of agriculture found themselves teaching subjects akin to agriculture but lacked the depth of expertise to transfer their knowledge to an equine situation. For example equine nutrition is very different to dairy cow nutrition as cows need to be fed to produce high milk yields and horses need to be fed for high performance when show jumping or doing cross country trials. The interviewees gave several examples to

illustrate this situation of staff lacking expertise but being required to transfer skills that were not always transferable. One agriculturalist said:

It wasn't good – I really felt some students had a poor experience as we were floundering to know quite what to teach. (B1)

### **The consequences of change**

During the 1990s, new types of students were beginning to enter agricultural colleges as the curriculum diversified (11) and qualifications changed (12). Thirty years ago the entry age in LBCs was from 16 or 18 years old, as students left school and gained work experience and attended day release classes for two years before attending college to study agriculture (5). This was followed by one or two years in college plus a sandwich year. Now young people want to earn money as soon as they leave school (7) so there is pressure on colleges and parents to admit students to colleges from 16 and many attend via school links programmes from 14 years old (7). Eight interviewees said that now many students originate from an urban rather than a rural background. No differences were perceived to exist between the training for farmers' sons and daughters, and farm workers (6).

Courses in equine management had been introduced to cater for students who wanted to study horse management and not solely riding, and to begin to help utilise the existing college facilities as numbers of agriculture students were waning. Parents often saw riding qualifications as not being 'proper' courses, as they considered riding to be a hobby and not a possible career avenue. Up until this point the available equine qualifications had been of a very practical nature, based mainly on riding skills and under the auspices of the British Horse Society (BHS) (4). The introduction of the Youth Training Scheme (YTS) programmes and BTEC First Certificate and Diploma courses in Horse Management in the 1980s meant that students were exposed to a broader range of content, including business management and customer care, and were of a practical nature including stable and horse management as well as riding. This appealed to those who wished to work with horses but not necessarily as a rider but where they could care for the horses, learn about setting up a business and customer care, develop their IT skills and ride as a hobby. Parents also perceived these new programmes as being 'respectable', as they contained transferable skills

which were suitable for a large range of alternative career paths. Parents were keen to support their children by attending Open Days and student interviews (8).

During the 1980s female students studied farm secretarial courses to appease parents when they might have preferred to have studied agriculture, equine or animal management courses. This was summed up by a lecturer in agriculture as:

You could tell they didn't really want to be farm secretaries, they wanted to be outside with animals but their parents were not keen for that (A5)

Farm Secretarial courses have now been replaced by Business Administration or Management programmes as secretarial skills *per se* are no longer sufficient in a busy farm estate office.

These examples indicate a demand-led curriculum that is student and parent led, but not necessarily employer-led. Nunn (1993) discusses how important parental involvement in their children's schooling has always been, and which challenges the employer led policies discussed in chapter 2. The trend has been for the curriculum to change from being agricultural production orientated to having more of a leisure focus (11), to accommodate and support the emerging industries associated with the local population having more free time, for example equine and countryside, and to respond to the nation's love of animals. This follows the pattern of change on farms. Short courses of a specialist nature are often offered (8).

### **Changes in teaching and learning**

As class sizes in agriculture decreased it was also possible for staff to alter their styles of teaching in classrooms (7) and develop a more activity based curriculum (8) rather than the talk and chalk model that had been prevalent for many years. Class sizes dropped from large groups of 80 students in 1990 to smaller more manageable sized groups of 15 to 20 or less (11). However, there was a tendency for colleges to join small groups of students from different programmes together to make delivery more cost effective and to allow as much time as possible for practical activities. This was not always successful as the backgrounds and interests of students were often very different. A lecturer explained:

I had to teach pig production to environmental students and agrics (agriculture students) together, and it never worked, as one lot couldn't cope with the more intensive approaches and the others didn't want outdoor pigs.... it would be different now. (B6)

Practical classes in land-based education and training are very expensive to deliver especially using the college farm. There is usually a requirement for the farm to be run commercially and also to provide teaching resources and data and be a 'green classroom'.

Prompted by smaller class sizes teachers have become more imaginative in their delivery (7), encouraging students to be more investigative coupled with the increased use of commercial farm data. Increasingly farm records are being computerised, so more data has becoming available for analysis purposes. The interviewees gave many examples of student activity. One activity was explained by a lecturer in agriculture as:

Agricultural students were given plots on which to cultivate a crop, and competitions were held to maximise profit for each plot. These activities mirrored the work on the farm and were realistic and relevant for the students. (A3)

College B ran a Bank Project where students visited a local farm and then put forward a case to the farmer for renting the farm and demonstrating how they would improve income and returns. Local Bank Managers were invited to judge the proposals and students defended their individual plan. Usually a hypothetical loan of money was required for the project so the Bank Manager would quiz students about this and negotiation of interest rates would follow, making the task very realistic for students. This was explained by one lecturer:

It was great fun and the culmination of three years on the course. At last they could start to tie everything together! (B2)

Half of the college staff interviewed (6) said that the introduction of core and key skills had been an important addition to the curriculum especially as students were often entering college at a younger age than they did twenty years ago and many lacked proficiency in English and arithmetic. Staff had grumbled at the introduction

of these skills (5) but found that the land-based subjects were excellent vehicles for embedding their delivery and that overall student performance and achievement increased as a result.

There were often insufficient specialist resources in LBCs for animal care and equine when these subjects were first introduced (7). In animal care, the teachers of larger classes were the ones thought to have been the most innovative (7). They realised that their teaching could get boring if they only did classroom based sessions with students, so they have been imaginative in devising ways to accommodate more active teaching and still maintain larger group sizes which are the most economical for the college, as a HOD in animal care said:

We do lots of sharing of practice and resources, which pays big dividends as the quality of the teaching improves and so does the learning. (A3)

Several participants (6) felt that general FE is the poor relation in education, summed up by one lecturer:

We are always playing catch-up, never enough funding and yet able to come up with most of the goods. (B1)

and the feeling was that the LBCs were even worse off (6).

It was felt by the senior managers in my sample that there is an important need for the FE teacher to become and be seen as an educational professional (Gleeson, Davies and Wheeler, 2005; Gleeson and Shain, 1999; Shain, 1999), as well as a vocational specialist – to have dual professionalism (Huddleston and Unwin, 2007; Robson, 2004) by maintaining and improving their subject specialism at the same time as becoming more expert in teaching and learning (IfL, 2010).

In the past, teacher education/training in agricultural colleges was ‘teacher-led’, as one senior person said:

It was *ad hoc* and random and easy to escape from (B6)

By that, he meant that staff had not been encouraged to train as teachers, as there had been nothing in place to legitimise or encourage this. It was perceived that vocational

expertise was sufficient to enter the classroom as a lecturer. More recently LBCs have been much more proactive in putting teacher training higher up their agendas (6). In both case study colleges all staff must be working towards or have completed the *Preparing to teach in the Lifelong Learning Sector (PTLLS)* qualification and are encouraged to progress beyond that to the certificate or diploma.

The role of the Learning and Skills Improvement Service (LSIS), peer review, and the setting up of subject networks locally were identified (7) as ways in which staff were being moved towards becoming educational professionals in their vocational area, to help raise teaching and learning standards.

### **Problems identified**

Diversification within colleges usually resulted in the need to restructure the college staff in order to accommodate the new curriculum areas. In the 1980s colleges had been traditionally run with several departments, for example Machinery, Crops and Livestock (5). More recently structures have been devised to accommodate a wider range of subjects clustered together as Faculties, for example Agriculture, Countryside, Equine and Animal Care in College A have become 'The Land-based Faculty'. Agriculture once the keystone of the college curriculum, and having its own department, had now been sidelined (4). One Head of Department commented:

we have all these fancy Faculties now... (A4)

This process broadly matches observations made by Ainley and Bailey (1997) on restructuring for changing needs:

....college management structures were streamlined, with fewer managerial positions remaining at higher levels (p45)

As teachers of agriculture left they were replaced by teachers of animal care or equine studies. Often in these new curriculum areas, for example equine, countryside and floristry colleges were recruiting staff with minimal experience in colleges (4) and very few new recruits had any previous teaching experience at all. In some cases new staff had excellent vocational experience but had not been a student at a college themselves, gaining their experiences in the industry and by gaining qualifications



that were offered by the industry, for example the BHS qualifications, or who had no formal qualifications at all (5). This was problematic sometimes for classroom-based teaching sessions where underpinning knowledge and some of the more theoretical aspects of for example, horse feeding and nutrition, were to be taught. This placed a burden on more senior staff to support their new colleagues. Existing staff with an agricultural background were required to teach on the new programmes. A lecturer in agriculture told me:

I had to teach grassland and grazing to the equine students, which was a different ball game. Horsey people don't think grass needs managing or even looking after. (They have fields called Liverpool .....which are just full of docks!!) (B6)

The resources required for the new curriculum areas was also an important issue for colleges to consider as the college farm did not always provide what was required. The farm provided mainly for courses in agriculture and horticulture and the farm managers needed to work out how the new courses could be best supported. Both case study colleges were imaginative in their ability to establish suitable resources. College A explained that initially they utilised a set of neighbouring stables for their equine venture. They were able to rent these from the owner for a peppercorn rent as the owner was delighted to see the stables being used once more. Capital funding, to 'pump prime'; was often difficult to access until the venture had proved itself. Those involved with teaching animal care expressed concerns about animal welfare issues and the need for colleges to consider the resource implications when they recruit large cohorts of students. Insufficient animals can mean over-handling and stress for the animals plus a need to house animals sympathetically, for example rabbits do not like to have rats as their neighbours.

Safety is of huge importance, so much so that at one college I was told by a lecturer in equine management:

It is quite an event if a student falls off a horse or gets kicked, as the animals are chosen because they are docile and safe to handle and be with novices, it just doesn't happen! (B2)

One of the difficulties facing the agricultural industry has been the failure in the past to provide attractive career progression opportunities for students (7). A lecturer in agriculture at College B explained how the poultry industry had led in the provision of career progression opportunities as much of the training for the industry is now carried out by commercial companies, for example Daylay and Bernard Matthews, and not the colleges. Only one LBC currently delivers any courses in poultry production and numbers are waning. Similarly in the pig industry an initiative to provide progression routes for students has been devised by the commercial companies (Lantra et al., 2006) responsible for pig breeding in the absence of anything suitable being provided by the colleges. It is likely that the dairy industry will follow suit in order to provide training in the most up-to-date technological aspects of the industry. These initiatives are seen as being in direct competition with the colleges but falling enrolments has meant that colleges are powerless to do much to prevent this happening further or to reverse the trends unless they can form partnerships with commercial companies. However several agriculturalists (5) said that student numbers in agriculture are now rising. The RASE is attempting to highlight a career in agriculture as being one that is rewarding, dynamic, well paid and well resourced, trying to move away from the image of poor working conditions, bad pay, and poor prospects. One of the drivers for these initiatives has been the increasing levels of new technology and mechanisation, for example robotic milking machines and milking parlours, and sophisticated computerised combine harvesters that are continuing to be introduced onto the farm, as the industry revives. Those working in agriculture must be fully equipped with the skills and technical knowledge to work in a high technology industry in which much capital is now being invested.

Some interviewees (4) expressed their concerns about land-based education and who is representing the colleges nationally. A Director of Studies said:

...who has a handle on this? Who knows about us? Small farmers? Polish fruit pickers? We need someone to have a better understanding of the industries (B6)

Landex was seen as being proactive in quality assurance (11), offering good support to colleges but staff volunteered (6) that they had little or nothing to do with Lantra,

finding them aloof and were critical of the lack of land-based experiences of the Lantra staff (5).

However, when interviewing a Lantra representative I was assured that Lantra have a major policy commitment towards addressing the problems associated with an ageing workforce in agriculture, a problem also identified by other interviewees (8). This includes promoting the new Diploma which aims to encourage 14 years olds in school to consider seriously a future career in agriculture or the land-based sector. They aim to highlight the range of career opportunities available in the industry from practical farming to research, teaching and an array of ancillary industries in which to find work. They plan to show the industry as responsive and dynamic and to try to dispel the 'set-in-its-ways, fusty' image.

A major problem identified by nine interviewees was that of schools and FECs now offering subjects that have hitherto only been delivered by the LBCs. There is animosity among the LBCs towards these FECs as many of them now offer courses that they see as 'theirs'. One lecturer put it:

This is really unfair – they are far bigger than us, **and** they don't have the right resources to teach our stuff – why don't they stick to what they are good at and leave us to do the same? (B5)

The colleges blamed the ABs for 'allowing' this situation (6) and grumbled about perceived reduced standards and poor resources and limited staff expertise of the FECs and especially schools (9). In reality students are successful in the qualifications they study only if they meet the learning outcomes of the qualification and present acceptable and suitable evidence against these, irrespective of the place of study.

### **Opportunities created**

The major opportunity afforded by the changes has been for colleges to have more freedom (8) and to be able to develop a more entrepreneurial approach to college activity (9). They have been able to rethink their curriculum offer and as a result to re-structure their college to accommodate these new directions and to grow in size (11). This has meant they have recruited a range of different groups of students (11),

and staff (5). New links were made with new industrial groups who have welcomed the opportunity to be involved with decision making in colleges (8) and to develop opportunities within their own industries. Participants gave examples which included links with FWAG, Young Farmers' Clubs and many conservations groups. The equine industry was perhaps less keen on links as they perceived the industry to have an acceptable set of practical qualifications via the British Horse Society, plus a now defunct Working Pupil (WP) scheme. The WP scheme meant that the student worked for an employer and often paid for this privilege and received no wages for a full working week. The YTS scheme required employers to contribute towards the allowance that trainees received which was at odds with their normal custom and practice. College staff in charge of YTS placements often found this process of securing good work placements challenging. One lecturer commented:

It was a nightmare! They (equestrian employers) wouldn't budge and were trying to insist we paid **them** to have our students, and they tried every dodge in the book to avoid paying – I remember warning one lady and said she would get blacklisted as there were rules! (B5)

Colleges have become very imaginative in seeking and sourcing funding to support their new initiatives.

## **Summary**

The main changes that have occurred in the LBCs were curriculum based, prompted by the down turn in the agricultural industry and developed by the freedom and flexibility acquired during incorporation. Realising that student numbers were falling drastically, college principals considered options to counteract these falling rolls and incorporation allowed them to do this. Their main aim was to ensure that their college remained sustainable and economically viable. Principals and senior management teams followed one of two routes. They were keen to maintain college independence by increasing the size of the college, which meant diversification, and a broader curriculum; less financially secure colleges sought to amalgamate with a local FEC or local HEI and benefit from economies of scale. Sixteen colleges have remained independent LBCs and have grown considerably in size and remained financially viable. Approximately 16 LBCs have amalgamated with their local FEC or HEI.

Teachers associated with teaching equine and animal care subjects tended to see the farming industry as difficult to access. One lecturer in equine science said:

We have to make agriculture sexy! There is a need to be proactive in marketing the agric (agriculture) courses ....to get rid of the old boys, public school image (A3)

The findings will be discussed in the next chapter.

## Chapter 5 Discussion

### Introduction

This chapter represents my analysis of the research findings. The RQs that were addressed were:

1. Do the changes in agricultural education mirror those in the land-based sector it now serves?
2. What drives change in agricultural education?
3. What changes to policy and practice should be recommended as a result of this study?

Unwin et al (2007) used the metaphor of examining the layers of a Russian doll to help describe the role and function of the multi-layered composition of workplaces, which when all the layers are re-assembled result in a more meaningful whole. Carefully peeling back the layers in this research confirmed that the LBC colleges have undergone many changes over the last 20 years. Many of these have been imposed as a result of external factors acting on the colleges. Some of these changes were necessary, for example diversification of the curriculum, and some were compulsory, for example incorporation. All changes were found to be quite traumatic when first introduced. However, it appears that the resultant transformation has been beneficial for the colleges and more suitable for their changed circumstances.

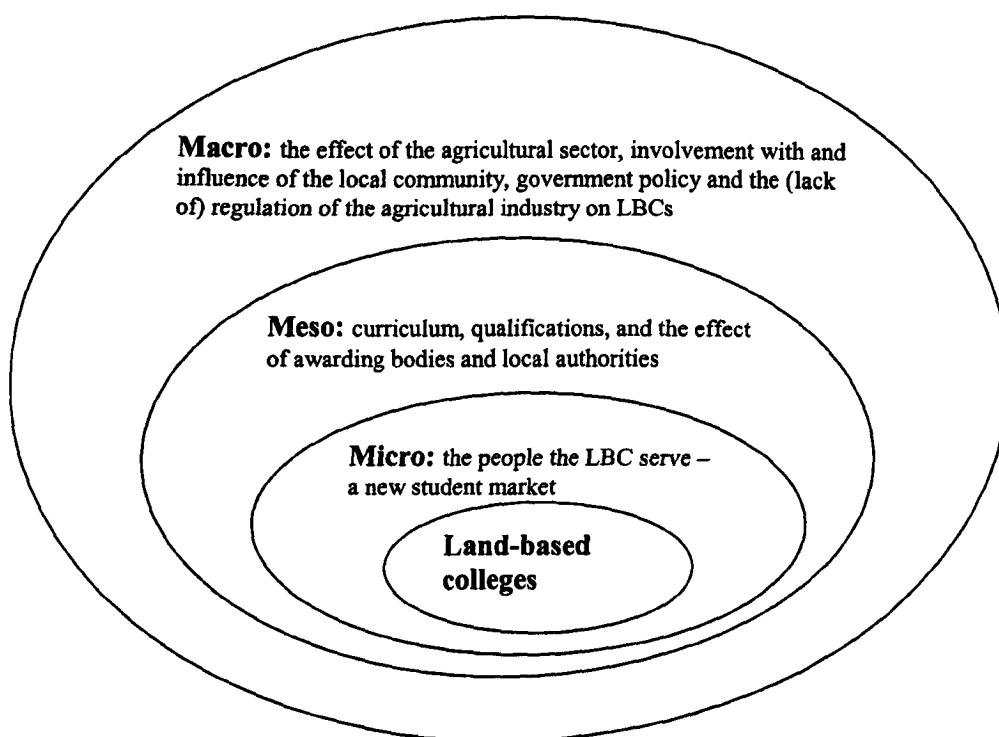
I am aware that the interpretation that I have made of the data may not be the same as that of another person analysing the same data, but I have been as careful as possible to ensure that my conclusions are based on evidence presented by the participants. The conclusions reached are therefore, suggestive and tentative rather than conclusive.

This chapter takes a wide approach to include a range of supporting literature to help with an understanding of the data presented in the previous chapter. The main themes identified when the data was analysed were:

- The effect of the agricultural sector and the local community on LBCs
- Government education policy
- Regulation of the agricultural industry
- Curriculum, qualifications and the influence and the effect of awarding bodies
- The people that the LBCs now serve - a new student market

The model below in Figure 1 attempts to demonstrate how the above themes are perceived to be interrelated in relation to the LBCs.

**Figure 1 -: Model demonstrating the interrelationship between the land-based colleges and factors impinging on them from the findings:**



The LBCs are at the centre of the model and have been impacted upon by influences at the **macro** (global/distant), **meso** (national) and **micro** (local/internal) levels.

The main impacts upon the LBCs have been at the **macro** level. The LBCs needed to change in response to the changes in the agricultural industry, but they were also required to make changes in response to college incorporation and other government initiatives. Concepts such as widening participation, life-long learning, progression routes and social inclusion have all become central to the work of FECs, including the LBCs.

Also at the **macro** level, is the lack of regulation of those new to the agricultural industry. This lack of regulation for those entering agriculture impacts upon the LBCs as they have no lever by which to insist that training takes place.

The effects of government interventions also impinge on the central core of the model as neither the industries nor the colleges can escape these. The then Conservative government introduced incorporation in 1993, and since then the Labour administration proposed targets to be achieved, controlling the funding available for colleges, and students who want to study at them. Government have also influenced young people by specifying school and college start and leaving ages, and by impacting on ABs by steering and accrediting the curriculum and qualifications developed by them via the regulators such as QCDA<sup>19</sup> and Ofqual.

At the **meso** level, ABs, steered by government policy, work closely with colleges and industries, in order to develop appropriate qualifications in content, type, shape, size and level. The aims of the qualifications developed are to help prepare students for entry into their chosen industry, and to provide and enable the existing workforce to improve and enhance their skills to meet new requirements of the industry. Progression routes for students are important to enable advancement to be made, but these are not industry-led, as farmers are not particularly interested in levels, and hence a government goal.

At the **micro** level, the market for the original FIs (now LBCs) was for 16 to 18 year old male school leavers. This has now been considerably extended, so students now studying in LBCs range from 14 years old still at school, attending college on a part-

---

<sup>19</sup> Qualifications and Curriculum Development Agency was abolished in May 2010 by the newly appointed coalition government



time basis up to and including many adult learners. A more varied student population now studies the broad curriculum available in LBCs, enabling them to gain the wider selection of qualifications now on offer. The average age of students has risen from about seventeen in the 1980s, to early to mid-thirties now.

Each of these main factors and their impact in the LBCs will now be addressed in the context of the RQs.

**RQ1. Do the changes in agricultural education mirror those in the land-based sector it now serves?**

As was shown in chapter 2 agriculture has suffered a severe depression over the last fifteen to twenty years (CRR, 2003; DEFRA, 2009; Gill, 2005) resulting from the Common Agricultural Policy encouraging over-production, leading to surpluses and a reduction in commodity prices. This led to substantial financial problems for farmers as commodity prices fell through over-production, and profits plummeted. There was also a reduction in the workforce as it became too costly to employ workers, and the industry became less attractive to work in.

Simultaneously the industry became more technologically orientated to help compensate for the reduction in the workforce, and farming businesses diversified in order to generate income from new enterprises on the farm using under-utilised or redundant resources (Chaplin, Davidova and Gorton, 2004; McNally, 2001).

The table below shows the impact of diversification and the broad range of diversification enterprises -:

**Table 13: The impact of farm diversification**

Diversification activity	Number of farms	Total farm income for these farms (£M)	Income of diversified enterprise (£M)	Average enterprise income (£/farm)
Letting buildings for non-farming use	20,700	1,380	270	13,000
Processing retailing of farm produce	4,200	170	40	9,800
Sport and recreation	6,500	330	30	4,700
Tourist accommodation and catering	3,100	90	30	10,300
Other diversified activities eg rural crafts	4,500	300	40	8,900

Source: (DEFRA, 2009)

Redundant farm buildings have been turned into accommodation for horse livery and offices; and self catering and bed and breakfast enterprises have been created, together with opportunities for water and land sports and trekking holidays.

Student numbers in the LBCs have dropped as agriculture collapsed, so change was inevitable. The main changes within the LBCs were twofold:

- a) the continuing support for a diversified agriculture; and
- b) the introduction and support for new industries.

The data collected demonstrates that LBCs have adapted and diversified their curriculum and activities in order to be able to support the new rurally-based industries well, and by providing part-time courses for farmers and others, enabling them to learn new skills associated with the new activities.

Support has also been maintained for agriculture by the LBCs, by still teaching the skills this industry requests, and by providing services to local businesses and creating more work-based learning for those already in work and in need of up-

skilling. In order to increase student numbers and remain viable LBCs now offer training and courses based on the newer industries which the colleges now reflect. The majority of the new full-time programmes are designed to attract young people to the colleges to replace those not now studying agriculture. A range of short specialist courses for part-time students have also been devised to support the new activities. Changes within the agricultural industry, upon which the LBCs were first developed, have thus impacted dramatically on the fortunes of the colleges themselves.

The findings show that the LBCs have accepted that they have had to diversify away from agriculture to remain in business, although supporting farming still lies at the heart of their ethos. The data collected shows that the colleges are always keen to identify ways in which they can continue to support their core industry as well as their newer curriculum areas.

The two case study colleges have changed their names, removing 'agriculture' from their college name to reflect their wider remit. This move is reflected across the sector, most LBCs have now done this.

It was evident from the perceptions of staff in the case study colleges that the LBCs aimed to, and have achieved, a continuous, balanced and sustainable growth in student numbers. There has been a substantial increase in services to businesses by providing appropriate education, training and expertise in new areas, such as forestry, fishing and equine. The senior managers in the LBCs who were interviewed said their aim was to generate sufficient income to help fund capital investment and growth in their own college. Another major aim has been to develop each college's human and physical resources. The findings show that fundamental to the success of each college has been for it to develop a reputation as the leading centre of land-based education and training locally, and to help increase awareness and support for further development of the college business. Ofsted reports obtained from LBC websites regularly commented on the outstanding achievement and standards obtained, the excellent employer engagement, partnership work achieved and the good links with local rural industries that the majority of LBCs have. The strong pastoral care and positive support ethos within the colleges was also acknowledged by Ofsted, together with the robust governance and strategic leadership demonstrated as being strong

features of these colleges and was in evidence during this research. The summary of final Ofsted grades for LBCs available from the web, are summarised in the table below:

**Table: 14: Summary of Ofsted final grades since 2004**

	Number of LBCs	Outstanding (1)	Good (2)	Satisfactory (3)	No report available
Numbers of reports (maximum 32)	32	4	15	8	5

These results are supported by a summary prepared by Ofsted (2008) where the high quality of provision in the LB sector was commented upon, and similarly by Landex (2009) who support LBCs by helping them to improve quality, who also identified high Ofsted grades reflecting a high quality provision across the majority of LBCs.

The LBCs have mirrored the changes within agriculture, and been proactive in diversifying their business activities, and developing courses in response to the growth in the new industries and needs. The findings showed that the newer industries such as equine and animal care have grown within the LBCs but these industries are led and monitored by professional bodies for example the BHS, who safeguard industry standards. Consequently the LBCs have less influence over these areas and tend to be responsive and not proactive towards change. However, the LBCs do mirror the changes in these industries.

In the next sections, I will assess the drivers of change in agricultural education which will attempt to provide some answers to RQ2.

## **RQ2. What drives change in agricultural education?**

### **The effect of the agricultural sector, and the local community on LBCs – macro**

The most significant overall cause of change to the LBCs was the contraction of the agricultural industry, and the consequent expansion of other rural industries, for example equine, animal care, forestry and floristry. The impact of industry changes

has changed the way the LBCs now work within their local community, and highlighted the need for colleges to be vigilant and to keep abreast of changes in the industries. Future challenges for agriculture include population and economic growth in emerging economies worldwide, changing dietary patterns, finite availability of land, climate change and the continuing availability of key resources such as water. The Smith Institute highlighted these factors as major global challenges that will impact on the agricultural sector in the future, in its report *Feeding Britain* (Bridge and Johnson, 2009). These factors are expected to lead to a slowdown in the rate of increase of global food productivity. This report recommended that training programmes to assist farmers to modernise their business were needed and that in England training programmes would need to correspond to the strategic requirements of each of the Regional Development Agencies and be supported by them. Ideally the LBCs would be involved in developing training, but the report failed to give this direction and details of how training would be achieved were not addressed. In order to help meet these challenges a huge opportunity exists for the LBCs to continue to help prepare new entrants for the industry and up-skill the existing workforce.

Farmers are characterised by an increasingly older age profile, which coupled with low levels of new entrants at all levels (farmers, growers, agronomists, scientists and marketers), is a matter for particular concern given that any drive to maintain or increase production and efficiency will require skills, energy and fresh thinking. The *Feeding Britain* report highlighted this potential problem area and commented on the lack of succession in many farm businesses, and the skills drain into other more attractive industries. The traditional family farm is being gradually replaced by bigger (though still mainly family-based) units requiring external labour, and where farmers need to have good management and technical skills. Many farmers have these, but access to, and taking up a range of education and training opportunities are key to improving those skills across the industry. There is much scope here for the LBCs to help initiate and maintain appropriate training for the sector.

In agriculture there is a great need to provide for more home-produced food in the future, a theme promoted in the launch of *Food 2030* campaign, by the then Secretary of State for Environment, Hilary Benn (2010) at the annual Oxford Farming Conference in January 2010. Although the campaign proposals were full of good

ideas there were no details about implementation, and the new coalition government has not yet progressed the plans. In the near future there most likely will be an increase in population (already at 60 million in UK in 2009) and a changing climate, which could be warmer and drier meaning that the growth of traditional crops of cereals and grassland could be threatened and that alternative crops would need to be grown. Currently the UK is only 60% self sufficient in food production, so the intention is to move towards 100% self sufficiency (Lantra 2009). This means that new ways of producing food and the associated skills will need to be taught and learned, providing additional opportunities for LBCs. Lantra predict a skills shortage in agriculture over the next ten years (Lantra, 2009) and a shortage of 60,000 workers in the industry, but the LBCs deny this, as they believe they identify and provide for training gaps as they appear locally.

### **Government educational policy - macro**

This study showed that incorporation was for the LBCs a crucial enabler in the change process. It gave LBCs the flexibility and freedom to be able to diversify in a way that helped them sustain their colleges. The findings showed that the LBCs are trying to achieve a balance between changes in the agricultural industry and the changes required of them in education via policy requirements such as the widening participation agenda, and the consequential student market changes. The findings confirmed that the LBCs have long recognised that the popularity of agriculture as a subject to study has waned over the last 15 years or so. The colleges have, however, responded to changes in the industry in order to remain viable and have attracted a wider client group into colleges with different interests that match the new subject areas that they have developed.

Initially for the LBCs, incorporation was seen as a direct move by government to prompt significant expansion and to reduce costs in the FE sector. This is supported by the findings of Randle and Brady (1997) whose research identified a clash of paradigms during incorporation between the concept of new managerialism versus public service professionalism of the lecturers. They found that there was a mismatch between the increase in throughput, and a cost cutting approach embraced by the 'new managers', which was not shared by the values held by teachers. Ainley and

Bailey (1997) also reported similar difficulties in FECs during and after incorporation. However in the LBCs, incorporation has proved to be an advantage for them in spite of initial misgivings. Lecturers in LBCs in this study did not perceive a loss in their professional status, in fact the reverse as the majority felt 'wanted' and 'needed' by their colleges. Simmons (2008) reported that after the turmoil immediately following incorporation, general FECs are now more open and inclusive organisations than under LEA control. This is now the case in the LBCs.

The desk study and the case study colleges revealed a substantial change in the curriculum on offer and the range of learning opportunities now provided in LBCs. These have been extended to address current industry needs and attract different groups of students. These changes have also necessitated the recruitment of new staff to teach the new subject areas, and in some cases existing staff have been retrained. A large range of additional subjects have been introduced for example forestry, floristry and fish farming to reflect the diversification of farming.

Curriculum content is to a large extent driven by the industry and its representatives such as the industry bodies. Huddleston and Oh (2004) also noted that 'Employers are increasingly expected to advise on curricular matters, subject specification programme design...' (p 96), but concepts such as levels and progression routes are not driven by the industry but driven by educational policy for FECs (Raggatt and Williams, 1999). The content of some qualifications is dictated by the industry regulations, for example the use of protective trousers, made of materials designed to withstand dangerous and sharp materials such as glass and metal. These are either worn or not worn and cannot be worn differently to accommodate for example Entry level or level 3 activities.

The findings showed that staff in the LBCs were not particularly interested in government education policy or direction *per se* which is a small problem. They were far more interested in the issues surrounding their own industry and the knock-on implications for teaching. Senior staff in LBCs have no option but to implement government policies but indicated that this was not always easy, but staff were compliant.

### **Employer led or student led?**

In the case study colleges examples were cited of a demand-led curriculum that is student and parent-led, and not necessarily employer-led, showing that students followed their own interests and are not guided by industry needs or skills gaps.

In this study, it appears that parents are still closely involved in their offspring's choices of course and career, welcoming more 'respectable' courses for them to follow, such as BTECs in Animal Care and Equine, and attending interview days and career meetings with their children to help support them making their choices.

The Leitch report (2006) states that:

building a demand-led system is the only way in which to increase employer and individual investment in skills and ensure that increased investment delivers economically viable skills (Leitch p49)

One of its proposals was for a change from the existing system of planning for supply, to one of responding to demand from employers and from individuals. The report also recommended that an employer-led body, the Sector Skills Development Agency (SSDA)<sup>20</sup> should be established, to 'strengthen employer voice' and act as a bridge with the SSCs. However Wolf (2007) argues that the recommendations in the Leitch report are not for an employer-led system but for yet more central planning, with the SSCs acting as the lynchpins of this centrally planned supply-driven training system. Centrally set qualification targets rather than student demand have determined what is taught to date (Wolf, 2009). Wolf also argues (Wolf, 2009; Wolf, 2010) that individuals are far better able to make decisions for themselves than anyone else and FECs should respond directly to individuals' decisions and demand and not to government preferences. Learners should be trusted to decide what to learn.

Errington (1975) observed over thirty years ago that parents were closely involved in the choices of college course made by new entrants to agriculture and horticulture. Munn (1993), made similar observations in a study examining the involvement of

---

<sup>20</sup> In 2007 the SSDA was replaced by the UK Commission for Employment and Skills (UKCES)



parents with schools and identified the importance of parental involvement in their children's education and schooling and how the role of parent as customer has enhanced the relationship between parents and the school.

Hyland et al (2003), when examining the student perspective of FE observed that many parents took a supportive role in their offspring's college careers, showing interest and offering advice. Coffield et al (2008) explored the impact of national policy on teaching and learning and found that the shift towards a more demand-led training and education system, intended to give employers and students more say, may destabilise educational providers and exclude disadvantaged learners.

The LBCs are acutely aware of the issues surrounding choices for students and the needs of employers, attempting to respond to student, parental, employer and local demand. The emphasis on the supply-side measures of FE, such as access and participation as failing to address the widening social economic and cultural causes of educational disadvantage was noted by Hodgson and Spours (1999). However, the LBCs seem to have addressed these issues. Their provision now enables students who might never have considered attending college after leaving school unqualified, and only able to do manual work on a farm, say ten or more years ago, now benefiting from the programmes provided by their local LBC.

### **Regulation of the agricultural industry**

Certain industries or vocations are highly regulated. It is necessary for participants to obtain a fitness to practise certification, without which they are not allowed to work, for example, doctors, social workers and midwives are all required to qualify with recognised qualifications in order for them to be eligible to be added to the professional register. The industry or sector standards are usually maintained by the particular professional body. The General Medical Council and the NHS trusts hold the medical registers. A member, for example a doctor, may be struck off the register for improper conduct or poor professional practice. Membership permits a licence to practise in the profession. In other professions, for example veterinary surgeons, vets must be registered with the Royal College of Veterinary Surgeons; or gas fitters must be on the Gas Safe Register (replacing the Corgi scheme in April 2009) to

demonstrate that they are trained to specific industry standards and therefore when someone is seeking to have gas appliances mended or serviced it is advisable to select a tradesperson who is appropriately trained and registered. FECs regulate teacher training by setting standards for teachers through the Institute for Learning (IfL). HEIs also offer accreditation and licences for university teachers. Other examples of regulated professions include those offering chartered status such as engineers, accountants, surveyors, and lawyers who each belong to their professional or chartered body.

Some industries are partially regulated; for example within some aspects of agriculture and the equine industries there are features of the industry which are regulated. These include, for example, animal transport, the use of chain saws and spraying equipment. These are situations where industry standards apply to guide the buyer or consumer of the products or services. These standards are usually linked to Health and Safety legislation and it is compulsory for workers to be certificated before they may perform these activities. The worker needs to demonstrate a certain level of competence before they are licensed to carry out some tasks, for example using a chain saw or spraying agrochemicals correctly and safely. Consequently apprenticeship schemes in the LB sector have very low completion rates for whole programmes because students complete the regulated sections first which helps them to get a job on a farm, and the rest of the apprenticeship gets ‘forgotten’ or delayed indefinitely. Evidence that this is the case is very poorly documented but was confirmed by speaking to a representative from NPTC, an AB dealing mainly with apprenticeships in the land-based sector (Hewitt, 2010). Farmers can still farm without holding these certificates of competence and can instead hire a worker who does hold the certificate to complete the relevant work.

Agriculture as an industry is un-regulated, as there is no control over entry to the profession. There is no requirement in UK agriculture for a farmer to be trained, or to prove themselves before they can farm land. There is however plenty of legislation imposed upon farmers from DEFRA on certain aspects of farming, for example bio-security.

Agriculture does not have the means to control entrants to farming, neither can it limit the entrants into practical farming as people can start farming as a result of parsimony, patrimony or matrimony as a farm owner, manager or farm worker. The findings showed that the LBC are keen to work closely with their local community believing that it is in the best interests of agriculture to help and encourage 'new blood' into the industry and help older more established workers to up-date their skills. Both case study colleges cited examples of their strong links with the industry, with industrial liaison groups for example, and their marketing activities designed to attract young people into the industry. There is no formal scheme in UK agriculture for model farmers to lead training, or support learners by demonstrating best practice. Many colleges have excellent links with local farmers and this approach could be beneficial to the industry.

The industry is probably more concerned with character and personality of workers than competence and qualifications for their workforce. There are lots of small or medium sized enterprises (SMEs), farms usually employing small numbers of staff, so the whole team must work harmoniously together (Seabrook, 1972; Seabrook, 1984) in order to maximise farm output and enable a pleasant and productive working environment.

Some farmers do have qualifications in agriculture, but some have qualifications that do not necessarily translate directly to assist with a career in agriculture, for example a degree in the humanities. This does not mean that their training is not valuable as some of the skills learned are transferable. However, there is no regulatory influence in the industry that the LBCs serve to force any change or to insist that to become a farmer someone must have a qualification in agriculture or business or appropriate experience.

Linkages between the colleges and the industries exists between the different sectors and LBCs. Meyer (2002) examined the changes in organisational thinking in schools and colleges over the last forty years, and concluded that the ability to organise these effectively and efficiently is becoming more important. There has been a shift away from loosely coupled organisations towards a much tighter contractual arrangement. In this research it appears that the degree to which the land-based industries are

coupled with the colleges varies according to the industry, for example agriculture is more tightly coupled with the LBCs because of the lack of regulation and the need for the LBCs to cement and confirm its links with agricultural industries, whereas in the equine industry the link is more loosely coupled with the LBCs as the industry is governed by tighter regulation and close links with industry bodies such as the BHS, and the LBCs can only operate at the fringes of this regulation.

A number of questions are raised as a result of examining the issue of regulation:

1. If there was a form of regulation for new entrants to farming what would this look like?
2. Would it be along the lines of:- is the farmer good enough to farm? How would this be measured? By demonstration of skills? Skill competence? Knowledge? Qualifications? Completion of task? Completion of a business plan?

The establishment of an institute or professional body to establish standards, monitor achievement against these and take responsibility for membership is a recommendation in this study. Membership is granted when standards are met.

In the future, Regional Development Agencies (RDA) will try to lead on change, but do they have sufficient expertise in the appropriate areas of education and training? It is unlikely that LBC will allow there to be skills shortages as short specialist courses for those already in the industry are offered according to demand and identified need, in order for workforce skills to be updated. It is likely that there will be a growth of locally run training groups, following the model that originated with the ATB, of local organisers reacting to need and meeting demand. The LBCs are well placed to help orchestrate change to their advantage. There is also the lack of a mechanism for measuring the employability of those with qualifications, or for identifying the reasons of those who drop-out and leave the industry.

### **Image of land-based occupations : implications for colleges**

The findings in this study showed that agriculture is struggling with an outdated image which does not always encourage young people to become farmers. The interviewees from a non-agricultural background, for example those teaching animal care or equine, saw farming as a rather dull career, whereas the agriculturalists saw it as a potentially dynamic industry for young people to join. The evidence also demonstrates that much is being done by the LBCs to recruit young people into agriculture by targeting pupils in schools. An important part of the work of the LBCs has been to stimulate demand for young people to enter agriculture by promoting it as a go-ahead and exciting career.

During this research I found that there was a paucity of adequate or accurate data of student registrations within the LBCs to show trends, such as qualification uptake and preferences, drop-out rates, a situation also noted in a joint LSC/Warwick University report (2003). The case study interviewees' perceptions both of their own college and nationally were that full-time registrations of students studying agriculture have declined in the last twenty years, and growth has occurred in other sectors. Although precise quantitative data to confirm this was very difficult to find, the message was a consistent one of a gradual decline in numbers of students of agriculture. It was also the perception that farmers' sons and daughters are less likely to study agriculture, and that farmers or their staff may have no inclination to enrol for a full-time programme of study. However, it is very likely that they will attend their local LBC for a short course to learn the skills required for them to be certificated for some of the legislative requirements within the industry for example chain saw use to legally perform the work, for example spraying using agrochemicals. Most farms are SMEs and the view from participants was that these businesses do not have the capacity to allow employees to follow full-time programmes in college, but can probably cope with releasing staff for short courses or limited day-release or part-time provision, especially during the dark winter evenings when outside work is not possible.

There is an urgent need for more co-ordinated and consistent data to be available centrally on student registrations, student performance and other quantifiable information relating to the LBCs. This is a recommendation in this study.

Evidence from both the desk study and the case study colleges showed that much of the marketing for LBCs is done locally, via the web and by word of mouth and is based on positive encounters with the LBCs. Both case study colleges spoke of several generations of students who have attended their college over the years, grandfather, father and now son or daughter, emphasising the need to foster local connections.

Other sources also suggest that the image of farming is dreary and needs a radical facelift. Spedding explored this theme in his report *New Blood, Attracting the best young people into agriculture* (Spedding, 2009). The picture he paints is gloomy but explains much is now being done to revitalise recruitment. There are, however, a number of national initiatives that have been started to encourage young people into the industry, for example the NFU *Fresh Start* programme is designed to help both new entrants into farming, and more established farmers, to develop their business, and to encourage and support family succession. This project has been enabled using *Fresh Start Academies*, usually based in the local LBC. Unfortunately the initiative is poorly promoted so take-up is poor, with few LBCs actually promoting it. Another initiative FACE, which aims to raise awareness in schools of careers that are available in the rural sectors. This is done by providing professional development for careers advisors and linking curriculum subjects to work related learning. Lantra through its *Skills for the Nation* campaign in 2009, has also been promoting the importance of the sector to the country as a whole, and explaining about the rewarding careers that are available. Lantra also have a *Recruitment, Image and Career* strategy but limited information is available on this initiative and case study staff were unaware of its existence. Lantra also have several schemes, for example the national Student Database and Job Profiles where skills are identified and matched to prospective employees but these are not widely known about, or supported.

The problem with all of these initiatives is a lack of tangible information about them and perhaps a naivety on the part of the organisers that they are what is required by the industry and LBCs. They are not widely promoted by the LBCs who prefer to mount their own focussed recruitment campaigns linked to immediate industry needs at local level, and a dislike of imposed initiatives.

This research showed that the LBCs work closely with their local community to promote short courses locally. Their aim is to make students, especially adults working full-time and attending college as part-time students, feel welcome. They provide a friendly and helpful service which encourages students to speak favourably of their experiences. In turn, this often motivates others in the family or locality to then attend additional course for leisure, and for offspring to attend taster courses. This activity in the LBCs is broadly in agreement with the high hopes espoused by the Kennedy report (1997) in which FECs would play a central role in lifelong learning activities in their local communities where students enjoy participating and benefit from them.

Improving the links with the local community has helped to demonstrate just how interesting some of the work of the college can be and local people have become more involved in attending events and activities at the colleges. The new Diploma in Environment and Land-based Studies, available for teaching from September 2009, attempts to widen access to the industries by encouraging more school children to study aspects of the environment from the age of fourteen. The diplomas are taught through a consortium, a mixture of schools and LBCs, although a number of FECs are also offering them. Its success will not be known for several years.

Spedding (2009) cited examples from an international perspective of how other nations help new young people into agriculture. In France, the industry is trying to update the tired and old image of farming. At the Paris agricultural Fair in March 2009 the French Government launched a *Farming Offers Fashionable Careers* campaign and *Tomorrow I'll be a farmer* banner. TV commercials have been devised but farmers when interviewed were worried that the 'wrong' newcomers would enter the industry, those not realising what is involved and that the work can be hard, with long hours and a difficult working environment that is often dirty and not as glamorous as the posters portray! However prospective entrants in France can expect tax cuts and subsidies to help them get a foot on the ladder, assistance that is not available in the UK.

In Holland and Germany only 'Master farmers' are allowed to help train new recruits into the industry, as discovered on personal visits to farms and LBCs in Europe. Here

farmers receive a college education and are qualified in agriculture. At the heart of Germany's model of skill formation lies a dual system of vocational education and training where trainers must be qualified according to the regulations governing this process (Ertl, 2004). In both the United States and New Zealand there are similar models of excellence for farmers allowed to train newcomers to the industry. No such requirement exists in the UK (Spedding, 2009) which is detrimental to the industry especially as experienced farmers with no family to succeed them in their business might welcome the opportunity of training a young person to follow in their footsteps.

Farmers and LBCs doubtless say that farming is a highly skilled and professional industry, but how widely is this recognised outside farming? More needs to be done to raise the professional profile of farming, especially for new recruits to the industry. Benn told the Oxford Farming Conference that the industry should be :

....talking up farming and food, not running it down, and by working together to celebrate what it does and everything that it means (Benn, 2010)

Soper (1995) argued that the skills required to farm are multifaceted and complex, involving business management, planning, juggling resources and budgets to make a profit, all of this means that farming is a profession. In other research, Brassley (2005), discussed the concept of professionalism in relation to agriculture as an industry. He identified some professional characteristics from the literature and tested the attributes of twentieth century farmers against these characteristics. Brassley (2005) concluded that some parts of the agricultural industry are professional such as the National Farmers Union, but that the industry is too diverse to simply categorise some farmers as professional and those who are not, and therefore 'unprofessional' so he suggested the alternative term 'lifestyle farmers' for the latter group. Wilson (2001) suggested another alternative term, 'post-productivist', meaning professional. Both of these terms for 'professional' or 'post productivist' imply a behavioural approach to economic, political or social change and are preferable than the use of terms such as young/old or trained/untrained etc. It might follow that certain geographical areas where the farms are large complex businesses, such as in East Anglia or the Paris Basin, are dominated by professional farmers, and that small farms such as in parts of Devon or the Greek Islands are populated by lifestyle farmers.



Qualifications are not required by the Agricultural Mortgage Company or by banks when a farm loan is required, or when an application is made for stewardships, for borrowing money or obtaining a grant. There is no requirement to demonstrate skills, knowledge or understanding of the industry, as the main qualifying criteria is that applicants need to have access to land that can be farmed. The need to improve the professional image of farming was identified at the Oxford Farming Conference when Hilary Benn, the then Secretary of State from DEFRA said:

We need a new culture of professionalism in farming (Benn, 2010)

The LBCs are attempting to address this situation but it is compounded because the industry does not have any professional standards by which professionalism can be judged.

### **The influence and effect of the Awarding Bodies - meso**

As the range of qualifications has grown and the curriculum has developed and diversified dramatically in the LBCs, so the involvement of the ABs has increased. Since approximately the year 2000, ABs have been required to accredit all their qualifications within the NQF framework in order for them to attract public funding. This meant that colleges were required to use NQF and not centre-devised qualifications in order to secure public funding to deliver their curriculum, unless they offered full-cost recovery programmes. This posed some problems for the LBCs who were faltering at this time with collapsing registrations. The use of 'off the shelf' NQF and not centre-devised qualifications seemed to threaten the opportunity for them to develop programmes of study that reflected a unique niche offered by them alone, for example viticulture (vine growing) and oenology (the science of winemaking). It appears that this rather restrictive process has been part of the catalyst for the LBCs to diversify in a way that suits and complements their local businesses and rural communities. LBCs have examined closely their own locality and devised programmes and opportunities to help develop the local rural area. This has often been achieved by offering full cost recovery programmes but also by seeking support and sponsorship from RDAs and large local businesses. For example, College A offers a range of short courses for prospective small holders, (the lifestyle

farmers), as the local area is well populated with retirees from the city keen to start a new life as smallholders. College B has introduced a series of machinery short courses sponsored by a machinery syndicate, comprising a group of farmers who share a 'pool' of machinery and who thus benefit from the shared training and subsidised fees.

This study shows that from the colleges' perspectives there are no skill shortages in the sectors, including agriculture. This is because as a shortage is forecast or identified the LBCs step in to counteract this and offer appropriate training courses either college or workplace-based and most usually as a short very focussed course. Lantra however claim that there is a critical skills shortage in the sector and that over 61% of farm businesses have reported difficulties in recruiting staff with the required skills (Lantra, 2009). Problems with recruitment may not be entirely skills based but could relate to the conditions on offer when working in a rural setting, for example the comparative rural isolation, poorer housing and lower pay levels compared with working in a comfortable office, living near to town facilities of schools, shopping, cinemas, pubs and clubs in a reasonably well paid job all of which could be more attractive to partners and families.

ABs have helped steer colleges towards developing progression routes for students. In the past LBCs tended to offer a collection of qualifications with no suggested progression routes. Curriculum development in the LBCs has in the past ensured a good match of course to student needs especially through the use of foundation level courses (Smith, 1989). ABs have encouraged LBCs to offer suites of linked qualifications over several levels offering more logical progression opportunities for students. Coffield et al (2008) suggested that this situation could be further improved with the introduction of a credit-based framework enabling learners to achieve and be credited for small steps of learning.

New methods of delivery and assessment have also been introduced into the colleges to make learning more active and fit for purpose for young people. This has been prompted by a change in the style of the vocational qualifications now offered by the ABs. There has been a change towards learning by doing, assessing students for the skills they have achieved using appropriate assessment which links learning and

assessment. This is also supported by the observations of Nijhof and Streumer (1998) and Coffield *et al* (2008) who showed that increasingly teachers set tasks which create opportunities for students to generate appropriate evidence against assessment criteria.

ABs have a role linking the industry which dictates much of the curriculum content in LBCs, and education policy which dictates levels, progression routes, qualification size and structures for learners, so it is unlikely that ABs need to be fearful as this role looks secure for the immediate future.

### **Delivering the curriculum**

My findings show that the LBCs have responded to the needs of the sector and are proactive in mounting appropriate training, especially in agriculture. These findings are supported by an Ofsted report (2008) covering 22 institutions offering land-based subjects (9 LBCs, 11 FECs and 2HEIs) which examined aspects of good practice within these colleges. This report commented that the curriculum in each subject was found to be appropriate in terms of level, content and industrial relevance, reflecting the latest in legislative requirements. It was also noted that there was often a tailored provision for specific land-based employer needs such as amenity horticulture for public parks, or specialist animal care work, such as greyhound welfare. This Ofsted report found that LBCs were offering additional vocational qualifications relevant to the future employability of students, in addition to their main qualification. Examples of these courses included the *Safe Use of Veterinary Medicines*, the *Correct and Safe Use of Pesticides* and *First Aid* courses which the colleges tended to subsidise, as the benefits to students studying these courses were seen as crucial in helping them to secure work and develop broader skills.

As the range of industries within the LB sector have increased substantially, the LBCs have expanded their original remit from one of mainly agriculture and horticulture prior to 1980. Their present day curriculum now covers over 20 different subjects. The skills within agriculture have also changed and become more sophisticated. For example combine harvesters are often fitted with computerised systems to monitor yield and wastage during the harvest. The driver must be able to not only operate the

machine and the computer but interpret the results, and use them effectively. The findings from this study show that some LBCs have also been able to maintain very specialist provision where student numbers are low in niche areas such as game-keeping or saddlery. The more profitable courses, for example animal care and equine programmes, are able to subsidise these.

Both of the case study colleges have developed extensive and very well equipped equine departments. Within the equine industry students need to learn the fundamental skills of horse riding and stable management normally associated with the sector, and in addition to learn the skills of running a business, and the science of breeding and feeding quality horses that can compete internationally. This also demonstrates the breadth and depth of teacher expertise now needed in the LBCs.

The findings show that the LBCs have developed effective learning programmes that demonstrate the inter-relationship between education, training and employer needs. This is supported by the work of Nijhof and Streumer (1998) who concluded that effective learning programmes are produced following the consideration of a number of factors and their successful interrelationship. This approach is an important feature of the work of LBCs as they attempt to support all the industries in which they are involved, thus ensuring that curriculum development and training mirrors the industry needs. Nijhof and Brandsma (1999) support this approach confirming that it is important to identify labour market needs for a sector as these can then relate to the content and organisation of the education and training for the sector.

In the case study colleges the timing of classes has become more flexible, students are often taught at a time that suits student availability. Also, new methods of delivery and assessment have been introduced into LBCs to make learning more active and fit for purpose for young people. Myers and Jones (1993) have observed this as taking place in general FECs. In the case study colleges there was evidence that more courses are run during the winter when work outside is limited and also classes are run in the evenings, perhaps starting in the late afternoon. Traditional three term academic years are no longer the norm as courses are run to suit students and when staff are available after having taught the full-time students. This has implications for staff conditions of employment, but these have usually been successfully negotiated.

The case study colleges reported that staff were keen to offer programmes timed to suit students and not themselves or the college caretaker.

### **The people the LBCs now serve - a new student market – micro**

New Labour's lifelong learning policy (DfEE, 1998) of widening participation in further and higher education is well illustrated in the LBCs. There has been a movement from an original 16 to 18 year old predominantly male student population, towards a student body ranging from 14 years of age upwards to 70 year olds and a more balanced male:female ratio. The range of programmes on offer now span from Entry level to post graduate provision. The LBCs have thoroughly embraced this approach with many LBCs now having learning support units for learners who need additional help in basic skills. This can be challenging for comparatively small colleges, stretching the college resources, especially the staffing, enormously. Both case study colleges, along with many LBCs have also developed HE units for degree level work. College A has a dedicated building and resources, whereas College B was more haphazard in its HE provision and numbers were small. Most LBCs have forged links with local HEIs to enable progression routes to be developed for students who wish to study HNs, Foundation Degrees and Degrees. The FE Act (DfES, 1992) placed FE at the centre of a national strategy for raising levels of skills and qualifications according to the analysis of Green and Lucas (1999). The LBCs are providing many more opportunities for those living in rural areas who twenty years ago may have left school at sixteen unable to read or do arithmetic at even a basic level. This approach was aimed to promote greater social inclusion and cohesion and also to raise skills levels to enhance Britain's economic advantage. It is also linked closely to the social inclusion aims of the Kennedy report (1997).

Both case study colleges visit farm and rural businesses to ascertain employer training needs and try to help farmers and SMEs target both training and funding needs for a variety of learners.

The LBCs now offer courses for those living within their immediate locality and also to 'rural fringe' students. These are students who live in the town but who often prefer to work and attend a small more intimate college in a rural setting. New

curriculum areas such as equine and animal care have attracted full-time students who are often female, helping to shift the gender balance from almost all male one, to a more balanced male:female ratio. Staff in the case study colleges welcomed this breadth and depth although the feeling was that it was very demanding, as one interviewee, a lecturer, said:

I have sometimes felt like a bit of spent elastic (B3)

### **How were the changes managed in the LBCs?**

The way in which the changes were introduced and managed by the two case study colleges demonstrated two quite different models. College A tried to regenerate itself by selecting subjects allied to the mainstream ones to develop into new areas of expertise and business. The college streamlined its approach and became as the Assistant Principal said 'lean and hungry'.

College B merged with larger institutions on two separate occasions to help improve its viability. One of the perceived crucial factors in both mergers was the retention of the college's brand name and advantages associated with increased college size following the mergers. Brand loyalty is well researched (Dick and Kunal, 1994; Jones, Mothersbaugh and Beatty, 2002; Reichheld, 1993; Reichheld and Sasser, 1990) and exists when customers have a positive attitude towards a brand which can be a great asset to an organisation. Abbott and Doucouliagos (2000) in a study of LBCs found that mergers between LBCs and FECs focussed on economic efficiencies to aid viability but that FECs were not ideally equipped to deal with the specialisms and culture of LBCs and maintained experts to run the LB section. This was the case with the College B mergers, causing tensions between the college and its new partners.

The specialist skills, knowledge and experience required in some new curriculum areas were often underestimated, and models for managing change in the two case study colleges broadly reflected what happened across all the LBCs. In some colleges change was highly managed (as per College A) and in others (like College B) a more *ad hoc* approach was adopted. Payne (2008) carried out work to identify strategic

options resulting from mergers in GFE, and concluded that mergers were usually policy driven and showed that there may be some benefits gained by increasing college size, but these benefits are not guaranteed, and the impact of college mergers on choice and competition is ambiguous. This reflects the situation in College B.

Staff in College A said that the internal transformation of change within their college had been crucial and had been conducted by mediation, and adaptation and constant reviewing of the situation. This approach is supported by the work of Coffield et al (2008) who said that change is best implemented when all parties are able to discuss the options rationally. Shah and Goss (2007) also suggested that the top down 'centralised behemoth' approach to change should be replaced by a looser style to fit the needs of those who use them. Bacharach et al (1996) also made a distinction between organisational change and the intra-organisational transformation process itself. As change in education is constantly occurring, transformation occurs only when there is a need for, and a successful realignment, of logistics within an organisation as part of the change process, which is tailored to local requirements. This process is similar to the situation at College A.

From the research findings it can be seen that LBCs link closely with their local communities and respond to their needs. Ecology normally has a biological origin, but an 'ecological perspective' can also be viewed as a concept to consider in a holistic way the complex and interdependent human relationships that operate in different levels in society (Coffield et al., 2008). An ecological perspective can be a useful tool to help understand the different and complex relationships between the LBCs and potential participants in a locality and to show how these relationships are enhanced or not, how needs are identified and met by the local LBC. This concept is helpful in the context of the LBCs as it examines the interrelationship of multiple factors that operate at local and institutional level to make any relationship (Coffield et al., 2008).

The use of the concept of an ecological perspective was first discussed by Bronfenbrenner (1979) to help tease out the meaning and relationships between different scales of human ecology. These were referred to as macro (global), meso (local) and micro (internal) levels. Stanton and Fisher (2006) further developed the

concept at meso level which examined relationships in a locality of different providers. This helps to examine how the LBCs inter-relate with the local community, linking the meso with the micro by conducting a needs analysis, and making the best use of available resources to meet identified needs, and responding to local demand.

College structures in LBCs have altered to accommodate a new way of working and also as a result of mergers which have taken place to improve college viability. College A has re-structured itself with college functions being separated into academic and administrative functions, enabling teachers to do less administration and more teaching. Staff found this a more acceptable way of working, compared with the 'old' departmental arrangements. College B has a more traditional departmental structure, more by default than by design, having not considered it necessary to change.

In many LBCs academic and functional tasks have been separated in many colleges allowing resources to be channelled more appropriately which aligns with the situation as described by Ainley and Bailey (1997). This is supported by work conducted by Meyer (2002) who concluded that the trend towards the increased adoption of managerial methods in education is in response to the increased complexities of colleges and school environments in an increasingly knowledge-dependent society to which hierarchical managerial structures are ill-adapted.

## **Summary**

The LBCs have changed in response to two main pressures exerted upon them. The agricultural industry has diversified and so out of necessity the LBCs have been pressurised into change to help accommodate the new trends. Thus the LBCs have mirrored changes in the agricultural industry. The second pressure was that of incorporation, which was imposed upon all FECs including the LBCs but this mandate helped consolidate the change process as it provided a flexibility for the LBCs to develop according to their local requirements.

The industry has led the diversification of the curriculum and its content and thus the skills needed to work on the farm. The nature of the qualifications on offer, such as



levels, progression routes and aspects of widening participation have been led by government policy. LBCs have always been very focussed towards the needs of the LB sector. The Foster report (2005) identified a lack of clear direction in many general FECs and proposed a new focus for the teaching of vocational skills, for progression opportunities and a widening of the net of prospective learners. LBCs are responding to the Foster review.

The curriculum changes have resulted in a different group of students now attending the LBCs to study a wider range of subjects over a greater range of levels. College student populations have changed from an average age on entry of about seventeen, and male dominated, to a wider age range of students and a more balanced male:female ratio. Colleges have also succeeded in accommodating the whole range of ability of students who wanted to come and study with them. The range of qualifications has changed in response to the need to become more diverse. The ABs have been responsible for developing suites of qualifications to meet the identified needs, a demand-led model and not a supply-led model.

In the future the LB sector might benefit from a regulatory or professional body which might insist on a specified route to be followed for employers, employees and the whole industry, short, medium and long term to enable professional recognition for those in the industry. Landex may be a more appropriate body to fill this bill than Lantra as they are closely involved in aspects of QA with LBCs.

## **Chapter 6 Conclusions**

### **Introduction**

The RQs that were addressed in this research project are:

1. Do the changes in agricultural education mirror those in the land-based sector it now serves?
2. What drives change in agricultural education?
3. What changes to policy and practice should be recommended as a result of this study?

This chapter concludes and summarises the extent to which the RQs were answered and suggests what changes to policy and practice should be recommended as a result of this study.

#### **RQ 1. Do the changes in agricultural education mirror those in the land-based sector it now serves?**

The findings showed that the changes that have taken place in agricultural education have mirrored the changes that have taken place in the agricultural industry. As the industry has diversified to counteract a decrease in its core business, so have the LBCs. They have diversified following the lead set by the industry, and have developed new curriculum areas arising from the new business activities. The agricultural industry needed to find ways of enhancing its income and the LBCs needed to expand. The findings showed that the underlying ethos of the LBCs has been of striving to maintain agriculture and the college farm, in spite of sectors such as equine and animal care being introduced into colleges.

The education and training in the agricultural sector is not controlled by the LBCs, nor are they controlled or regulated by the industry, so it is in the interests of the LBCs to lead in this area, which they do, and to adapt to the needs of the industry in order to remain viable. This suggests the need for a professional body within the sector to help standardise and regulate the industry and to manage this process. This

body would also to lead on improving recruitment and ensuring that opportunities exist for up-skilling employees.

### **What changes are not mirrored and why not?**

The findings showed that in the equine and animal care sectors, the situation is slightly different to that in agriculture as these two sectors are controlled by organisations other than the LBCs. For example the BHS steers equine training and education and the National Lifelong Learning network for Veterinary and Allied Professionals (VetNetLLN) steers education and training for animal care workers. These organisations are responsible for developing regulatory frameworks of qualifications which encompass the standards and requirements for future vets, animal nurses, equine specialists and many riders. The LBCs therefore are in the position of being followers and not leaders in this part of the change process. They have introduced qualifications for these sectors which have proved to be very popular although the equine industry still holds the BHS competence based qualifications in great esteem and refers learners to these at all times. Riding schools can also deliver BHS qualifications. Many LBCs offer both BTEC and BHS qualifications for their students to enhance their employability, for example the BHS road safety test is essential for anyone riding horses on roads. BHS also require the trainers to be certificated with their qualifications before they are eligible to teach the skills and content to others. This has had staffing implications in the equine departments of LBCs. In the early days when equine subjects were first introduced new teachers of equine studies usually had industrial experience and BHS qualifications only. During the last fifteen years BTEC National Diplomas and HNDs, Foundation Degrees and university degrees have been developed in equine science and management so teachers now tend to enter the teaching profession with a wider range of more academic qualifications, together with the BHS ones. They are thus better equipped to teach a broader spectrum of subject matter, in addition to the practical skills required for the BHS qualifications. Practical skills certification is not required for teachers of agriculture.

The changes in the LBCs have largely mirrored those in the industries that they support.

## **RQ 2. What drives change in agricultural education?**

The changes in the LBCs have been driven by two main factors. The first of these has been the response to the declining state of the agricultural industry. The industry became very depressed and contracted over several years, which in turn affected student numbers in the LBCs. Registrations of those wanting to study agriculture dropped significantly. The industry began to diversify, so the LBCs followed suit, and different curriculum areas were introduced into the LBCs to attract students to replace the falling numbers of agriculture students.

The second major factor driving change in the LBCs was the introduction of incorporation, a situation imposed by the government, resulting in a more independent role for all FECs and the loss of control by the LA. After some initial turmoil this proved to be a key factor offering flexibility and an opportunity for more entrepreneurial work and development of the unique selling point of each college including LBCs, when they needed it most. There have also been other government initiatives such as the introduction of the NQF and QCF frameworks and progression routes for learners.

The LBCs are now serving a new clientele, not only those from agriculture but they are now catering for a wider range of interests linked to land based (LB) ones, such as equine, forestry and fish husbandry. In order to remain viable the findings showed that approximately sixteen of the original thirty two LBCs, have merged with other institutions (FEC and HEI).

Changes in the industry and incorporation have been two main drivers to change in LBCs. There is an urgent need to improve recruitment into the industry and to improve the awareness of young people and the general public towards the industry.

## **RQ 3 What changes to policy and practice should be recommended as a result of this study?**

There are implications from the findings which point to the need for some changes to policy and practice to be considered in the future.

### **The creation of a professional body**

Qualifications or evidence of competence are not required by those who farm land in the UK. The findings suggest that the development of an industry standard which could be driven by an impartial organisation with experience of education and training would be a helpful move towards professionalising farming. This is supported by the work of Cunningham (2008) which examined the importance of professionalism and the issues surrounding professional life. A professional industry development body is needed as a catalyst for more change. The role of Landex could be expanded to accommodate this role together with the LBCs. Landex already has a quality assurance remit in the LBCs which helps to drive up quality of teaching and learning might be able to carry this out this role. The professional body would have an overarching remit to:

- Develop, maintain, and monitor industry standards
- Work with others to provide a coherent framework of standards encompassing appropriate education and training and experience
- Co-ordinate membership of the professional body
- Co-ordinate recruitment to the industry throughout the UK as the image of farming needs to be improved.
- To provide a programme of CPD and short specialist courses for those already in the industry to enable workers to be able to update their skills which could be used towards gaining professional status or membership. These would be delivered through the LBCs
- Development of local training groups, based at LBCs where local college staff encourage and recruit onto appropriate training courses and enable and assist with portfolio building.

The industry standards would allow the possible regulation of new entrants to farming, providing criteria for membership of the professional body.

Mentoring and networks could be established for young farmers to assist with the professional acquisition process. The LBCs should continue to develop their role as rural business centres or hubs providing education, training and related rural services

for those living and working in the countryside. This concept further develops the ideas of Errington and Harrison Mayfield (1995) who first visualised LBCs as the hub for all rural training needs. In this role LBCs would be in a strong position to provide the necessary training for potential farmers in order for them to be able to apply for membership of a professional body. Membership of the professional body might follow the model:

1. Student membership – a ‘work in progress’ stage
2. Full membership for those who have achieved the standard which could be demonstrated through a portfolio of qualifications, evidence of appropriate experience, knowledge and skills
3. Founder membership for those who have achieved the standard according to their peers (to accommodate older experienced farmers who have perhaps minimal formal qualifications).

## **Data**

There is an urgent need for a more co-ordinated and consistent approach to data collection of information on student registrations, student performance and other quantifiable information relating to the LBCs, and colleges offering LB qualifications. This data would be stored centrally and be easily accessible to LBCs. The data currently available on student registrations is very difficult to locate, and lacks consistency as it has been assembled by different bodies in different formats over many years. The professional body might take on this role.

This data is vital to support the decision making processes in LBCs, for example choices of courses to offer, current trends and estimates of future directions, and to assist with the allocation of both human and physical resources within the LB sector, for all education and training requirements.

## **Limitations and implications of this research**

The LBCs were found to be dynamic organisations, endlessly adapting to accommodate local and national changes. This research was conducted over one short

period of time and so only gives a perspective of that period of time. To what extent this study provides the complete picture for all the LBCs in the UK is unknown, a longitudinal study in five years time to follow up these findings would be a logical next step.

This research was based on English LBCs and the sample size was small, so this investigation could be repeated in a broader context. The issues raised in this research could be further interrogated to ascertain any regional differences in the survivability of LBCs, to consolidate or amend the conclusions reached. Further research could be carried out on LBCs in Scotland, Wales, Ireland and Europe to attempt to discover how LBCs in these areas have survived or not, and reasons for this.

Students were not included in the study, mainly for logistical reasons, and could have offered useful perspectives, especially on their views of the industry and career prospects in it. Clearly this could form the basis of another study in the future.

Although it was concluded that from the LBC perspective there does not seem to be a skills shortage in agriculture, Lantra (2010) maintain that there will be a skills shortage over the next ten years. An additional piece of research would be to conduct an analysis of the skills currently required by the agricultural industry which would include an analysis of current job advertisements, mapping the skills required by employers against those taught in the LBCs.

There is an urgent need to consider concerns over future food production and climate change and the new skills that will be required to respond to these. It is therefore imperative for there to be a government Department of Agriculture and Environment, **and** another for Food Production to address the changing needs of food and agriculture in the twenty first century.

### **Implications for my professional role**

My own learning has been enhanced and further developed. In carrying out this research and in interpreting the data collected from the field work I have drawn some

conclusions from my findings but I am aware that others who may have interpreted this data might have drawn other conclusions.

My understanding of the issues associated with the changes that have occurred within the LBCs and the sectors in which they now operate has been extended. I have tried to contextualise the issues raised by the case study colleges into the national picture and also within the relevant literature, but I am aware of the dangers of drawing conclusions based on limited evidence.

### **Final summary**

Some answers have been identified for the RQs posed at the start of this research. LBCs have changed by mirroring the changes in the agricultural industry, by diversifying to survive and remain viable. The result is a wider curriculum, a new student population and more local connections. Qualifications, levels, progression routes, assessment styles and widening participation have also been introduced, as government education initiatives and not changes prompted entirely by the industry.

The changes driven by industry diversification have led to changes in the type of learners now attending LBCs, a wider curriculum and different ways of delivery, which incorporation made possible. The government is also showing more of an interest in skills and education and training in agriculture, as witness Hilary Benn announcing the need for more Academies in agriculture (Benn, 2010). Is this a revitalisation of the LBCs and history repeating itself? The twentieth century version of the Reay report (1908) whereby a structured system of centres for training for agriculture is perhaps being reconsidered.



## References

- Abbott, J. and Doucouliagos, C. (2000), 'Assessing the Economic Efficiency of Specialised Tertiary Educational Institutions: The case of the English Agricultural and Horticultural Further Education Colleges (unpublished)'.
- Ainley, P. and Bailey, B. (1997), *The Business of Learning: Staff and Student Experiences of Further Education in the 1990s*. London: Cassell.
- Avis, J. (2009), 'Further Education in England: the new localism, systems theory and governance'. *Journal of Education Policy*, 24 (5), 633 - 648.
- Bacharach, S., Bamberger, P. and Sonnenstuhl, W. J. (1996), 'The Organisational Transformation process: The micropolitics of dissonance Reduction and the Alignment of Politics in Action '. *Administrative Science Quarterly*, 41 (3), 477-506.
- Bassey, M. (1999), 'Methods of Enquiry and the Conduct of Case Study Research '. In M. Bassey (ed.), *Case Study Research in Educational Settings* (pp. 65-91). Buckingham: Open University Press.
- Bates, I., Clark, J., Cohen, P., Finn, D., Moore, R. and Willis, P. (1984), *Schooling for the Dole: The new vocationalism*. London: Macmillan.
- Benn, H. (2010, 12.1.10), 'Benn says we need more skills academies'. *Farmer's Weekly*.
- Benn, H. (2010), The future of food, *Oxford Farming Conference*. Oxford University.
- BERA. (2004), *Revised Ethical Guidelines for Educational Research*. Edinburgh: British Educational Research Association.
- Board of Agriculture and Fisheries. (1908), Departmental Committee on Agricultural Education in England and Wales, Cmnd 4206, Board of Agriculture and Fisheries, (Reay Report). HMSO, London.
- Brassley, P. (2005), 'The Professionalisation of English Agriculture?' *Rural History*, 16, 235-251.
- Bridge, J. and Johnson, N. (2009), *Feeding Britain*. London: The Smith Institute.
- Bronfenbrenner, U. (1979), *The Ecology of Human Development: experiments by nature and design*. Cambridge Massachusetts: Harvard University Press.
- Burton, H. M. G. (1943), *Education of the Countryman*.
- Callaghan, J. (1976, 18th October 1976), *Towards a National Debate*. Paper presented at the Foundation stone-laying ceremony, Ruskin College, Oxford.

- Carrington, P. (1953), *Report of the Working Party on Agricultural Education (Carrington report)*. London: HMSO.
- Chaplin, H., Davidova, S. and Gorton, M. (2004), 'Agricultural adjustment and the diversification of farm households and corporate farms in Central Europe'. *Journal of Rural Studies*, 20 (1), 61-77.
- Coffield, F. (2004), 'Evidence-based policy or policy based evidence? The struggle over new policy for workforce development in England. ' In H. Rainbird (ed.), *Workplace learning in context* (copy in vol A ed., pp. 279-298). London: Routledge.
- Coffield, F., Edward, S., Finlay, I., Hodgson, A., Spours, K. and Steer, R. (2008), *Improving learning, skills and inclusion: the impact of policy on post-compulsory education*. Abingdon, Oxon: Routledge.
- Cohen, L., Manion, L. and Morrison, K. (2004), *Research Methods in Education*. (5th ed.). London and New York: Routledge.
- Cowley, A. (1664), *Of Agriculture*.
- Crozier, G. (1998, August 27th to 30th 1998), *Is it a case of "we know when we are not wanted?" the parents perspective on parent-teacher roles and relationships*. Paper presented at the British Educational Research Association Annual Conference, Belfast, Northern Ireland.
- CRR. (2003), *Farm Diversification Activities*. Exeter: Centre for Rural Research, University of Exeter.
- Cunningham, B. (2008), (ed) *Exploring Professionalism*. (1st ed.). London: Institute of Education.
- DBIS. (2009), *Skills for Growth - The National Skills Strategy: Analytical Paper*. London: DBIS.
- DBIS. (2009), *Skills for Growth - The National Skills Strategy Cmnd 7641m*. London: DBIS.: Department for Innovation, Business and Skills.
- DEFRA. (2002), *The Strategy for Sustainable Farming and Food - Facing the Future*: DEFRA.
- DEFRA. (2004), *Learning Skills and Knowledge Review*. London.
- DEFRA. (2009), *Agricultural Statistics in your pocket 2008*. London: DEFRA, HMSO.
- DEFRA. (2009), *Agriculture in the UK*. Paper presented at the Agriculture in the UK seminar, York.

- Denney-Finch, J. (2009), *Understanding consumer perceptions of British farmers*.  
Paper presented at the Oxford Farming Conference, January 2009 Oxford.
- Denscombe, M. (2005), *The Good Research Guide*. (2nd ed.). Maidenhead: Open University Press.
- Denscombe, M. (2007), *The Good Research Guide for small-scale social research projects*. (3rd (reprinted 2008) ed.). Maidenhead, Berkshire: Open University Press.
- Denzin, N. (1989), *The Research Act*. (3rd ed.). Englewood Cliffs, N.J.: Prentice Hall.
- DES. (1966), Report of the Advisory Committee on Agricultural Education (4th Pilkington Report); DES and National Advisory Council on Education for Industry and Commerce: London: HMSO.
- DES. (1987), NAFE Non Advanced Further Education in Practice. In Department of Education and Science (ed) (Vol. 4 Agriculture): HMSO.
- DES. (1988a), *Education Reform Act*. London: DES.
- DES. (1988b), Employment for the 1990s Cmnd 540. In DES (ed):HMSO London.
- DES. (1991), *Education and Training for the 21st Century Cmd 1536* (CM 1536). London: DES.
- Desmond, K. (1982), *Richard Shuttleworth An Illustrated Biography*. London: Jane's Publishing Company.
- DfE. (2010), *Youth Cohort Study and Longitudinal Study of Young People in England: The Activities and Experiences of 18 year olds: England 2009*. London.
- DfEE. (1973), Report of the Joint Advisory Committee on Agricultural Education 1973 (Hudson Report): London: HMSO.
- DfEE. (1998), *The Learning Age: A Renaissance for a New Britain*. London: DfEE.
- DfES. (1973), Report of the Joint Advisory Committee on Agricultural Education 1973 (Hudson Report): London: HMSO.
- DfES. (1992), *Further and Higher Education Act*: DfES London.
- DFES. (2001), Learning and Skills Act. In DFES (ed):HMSO.
- DfES. (2002), *Success for All: Reforming further education and training*: DfES London.
- DfES. (2003), 21st Century Skills: realising our potential (individuals, employers, nation). In Education (ed):DfES: London.
- DfES. (2005), Skills: Getting on at Business, Getting on at work CM6483-1:HMSO.

- DfES. (2006), *Further Education: Raising Skills, Improving Life Chances*. London: HMSO.
- Dick, A. S. and Kunal, B. (1994), 'Customer Loyalty: Towards an Integrated Conceptual Framework'. *Journal of the Academy of Marketing Science*, 22 (2), 99-113.
- DIUS. (2007), *World Class Skills: Implementing the Leitch Review of Skills in England*. London: HMSO.
- Dunlop, O. J. (1913), *The Farm Labourer: The History of a Modern Problem*. London: Fisher Unwin.
- DWP. (2007), *In Work: Better off*. London: Department of Work and Pensions HMSO.
- DWP and DIUS. (2008), *Ready to Work, Skilled for Work: Unlocking Britain's Talent*. London: DWP and DIUS.
- Errington, A. J. (1975), *Parental influence on new entrants to agriculture and horticulture: an exploratory study*: Research Department Agricultural Training Board.
- Errington, A. J. and Harrison-Mayfield, L. (1995), 'Agricultural Education in England and the dictates of the market'. *The Journal of Agricultural Education and Extension*, 1 (4), 25-40.
- Ertl, H. (2004), 'Tradition and reform: modernising the German dual system of vocational education'. In G. Haywood and S. James (eds), *Balancing the skills equation*. Bristol: The Policy Press, University of Bristol.
- Escolme, R. (2002), *In Search of Excellence*. Leicester: NIACE.
- Evans, D. (2007), *History of Technical Education*. London: Tmag.
- FEFC. (1993), *Assessing Achievement (framework)* Circular 93/28:FEFC Coventry.
- FEU. (1987), *The Rural Economy: Implications for Further, Higher and Adult Education*: DES, FEU unit.
- Flick, U. (2006), *An Introduction to Qualitative Research*. (3rd ed.). London: Sage Publications Limited.
- Floud, F. L. C. (1927), *The Ministry of Agriculture and Fisheries*. London.
- Foreman, S. (1989), *Loaves and Fishes - an illustrated history of the Ministry of Agriculture, Fisheries and Food*. London: MAFF.
- Foster, A. (2005), *Realising the potential - A Review of the future role of Further Education Colleges*. London: DfES.

- Fussell, G. E. (1975), *Mezozozdesgi Oktatus Anglabon 1914 Elott (Agricultural Education in England Before 1914)*. Unpublished Translation in the Institute of Agricultural History, University of Reading.
- Gasson, R. (1968), 'Occupations Chosen by the Sons of Farmers '. *Journal of Agricultural Economics*, XIX (3).
- Gibson, W. (2006), Advanced Research methods EdD course workshop June 2006: Analysing Qualitative Data. London.
- Giles, A. K. and Cowie, W. J. G. (1964), *The Farm Worker: His Training, Pay and Status* (pp. 43). Bristol: University of Bristol, Department of Agricultural Economics.
- Gill, B. (2005), 'UK farming's future - a personal view '. *Journal of the Royal Agricultural Society of England*, 166.
- Gillham, B. (2000), *Case Study Research Methods*. (1st ed.). London and New York: Continuum.
- Glaser and Straus. (1973), *The Discovery of Grounded theory*. New York: Aldine.
- Gleeson, D. (1990), 'Skills training and its alternatives'. In D. Gleeson (ed.), *Training and its Alternatives*. Milton Keynes: Open University Press.
- Gleeson, D., Davies, J. and Wheeler, E. (2005), 'On the making and taking of professionalism in the further education workplace'. *British Journal of Sociology of Education*, 26 (4), 445-460.
- Gleeson, D. and Shain, F. (1999), 'By Appointment: governance, markets and managerialism in further education'. *British Educational Research Journal*, 25 (4), 545-561.
- Government. (1890), Local taxation (Whisky Money) Act (Vol. 354 c1721): Hansard 29th June 1891.
- Green, A. and Lucas, N. (1999), *FE and Lifelong Learning: Realigning the Sector for the Twenty First century*. London: Institute of Education.
- Groby, M. (1989), 'Curriculum Traditions'. In B. Moon, P. Murphy and J. Raynor (eds), *Policies for the Curriculum*. London: Hodder & Stoughton.
- Hager, P. (2004), 'The Competence Affair, or Why Vocational Education and Training Urgently Needs a New understanding of Learning'. *Journal of Vocational Education and Training*, 56 (3), 409-434.
- Haggar, R. (2002), *Conservatism, Thatcherism and The New Right*. London: Earlham Sociology Pages.

- Hartlib, S. (1615), *Essay for the Advancement of Husbandry Learning and Proposition for Erecting a College of Husbandry*.
- Hayward, G. (2004), 'Forward: A century of vocationalism'. *Oxford Review of Education*, 30 (1), 3-12.
- Hewitt, S. (2010), Private Communication.
- HMI. (1987), *NAFE: Non Advanced Further Education in practice: an HMI survey: 4 Agriculture*. London: DFES.
- Hodgson, A. and Spours, K. (1999), *New Labour's Educational Agenda*. London: Kogan Page.
- Hodgson, A. and Spours, K. (2003), *Beyond A Levels: Curriculum 2000 and the reform of 14 to 19 qualifications*. London: Kogan Page.
- Hodgson, A., Spours, K., Waring, M., Gallacher, J., Keep, E. and Rees, G. (2011), 'Post -compulsory education and lifelong learning across the UK: moving from managed divergence to a new period of uncertainty'. London: Institute of Education.
- Hodkinson, P. (1991), 'Liberal Education and the New Vocationalism: a progressive partnership?' *Oxford Review of Education*, 17 (1), 73 - 88.
- Holt, M. (1987), *Skills and vocationalism: The Easy Answer*. Milton Keynes: Open University Press.
- Hostetler, J. A. (1993), *Amish Society*. (4th ed.). London: John Hopkins Press Ltd.
- Huddleston, P. and Oh, S. (2004), 'The magic roundabout: work-related learning within the 14 to19 curriculum'. *Oxford Review of Education*, 30 (1), 83 -103.
- Huddleston, P. and Unwin, L. (2007), *Teaching and Learning in Further Education*. (3rd ed.). London: Routledge, (Taylor and Francis Group).
- Hughes, P. (2001), 'Paradigms, methods and knowledge'. In G. McNaughton, S. A. Rolfe and I. Siraj-Blatchford (eds), *Doing Early Childhood Research*. Buckingham: Open University Press.
- Hyland, T. and Merrill, B. (2003), *The Changing Face of Further Education: Lifelong Learning, Inclusion and Community Values in Further Education*. (1st ed.). London and New York: Routledge.
- IfL. (2010), *Brilliant teaching and training in FE and skills. A guide to effective CPD for teachers, trainers and leaders*. London: Institute for Learning.
- Jones, M. A., Mothersbaugh, D. L. and Beatty, S. E. (2002), 'Why Customers Stay: Measuring the Underlying Dimensions of Services Switching Costs and

- Managing their Differential Strategic Outcomes '. *Journal of Business Research*, 55, 441-450.
- Keep, E. (2006), 'State control of the English education and training system - playing with the biggest train set in the world '. *Journal of Vocational Education and Training*, 58 (1), 47 - 64.
- Keep, E. (2007), House of Commons - Education and Skills - Minutes of Evidence 27.02.07:Hansard.
- Keep, E. (2007), The Leitch Review - does it make sense? In H. o. C. Paper presented to a meeting of the Skills Commission/National Skills Forum, 6th March 2007 (ed).
- Kennedy, H. (1997), *Learning Works: Widening Participation in FE*: FEFC Coventry.
- Kramer, A. (2008), *Land girls and their impact*. Barnsley: Pen and Sword Books Ltd.
- Landex. (2009), *Annual Report*. Stoneleigh, Warwickshire: Landex.
- Landex and Croxon, V. (2008), *Data of Land based Industries*. Stoneleigh Warwickshire: Landex.
- Lantra. (1999), *Skills in the Land-Based Sector. Interim labour market report*.Kenilworth Warwickshire: Lantra.
- Lantra. (2000), *Skills in the Land-Based Sector. Labour Market report - Stage 2*.Kenilworth, Warwickshire: Lantra.
- Lantra. (2001), *An Assessment of Skill Needs in the Land-based Industries*. London: DfES.
- Lantra. (2004), Minutes of Land-Based Awarding Bodies February 2004 (pp. 3): Lantra.
- Lantra. (2005), *Analysis of Current and Future Skills Needs*.
- Lantra. (2006), *The Sector Skills Agreement for England - Annex*.Coventry, Warwickshire: Lantra.
- Lantra. (2007a), *Developing Business Competence: Final report 2005*.Warwick: DEFRA (Skills and Rural Enterprise Division).
- Lantra. (2007b), *Recognising Skills, Learning and Professional Development in the Environmental and Land-based Sector*. Warwick: Lantra.
- Lantra. (2008, 11th June 2008), *Could farmers become extinct by 2035?* Paper presented at the Skills for our Nation, Whitehall, London.

- Lantra. (2009), Sector Qualification Strategy Action Plan July 2009 to June 2011 (pp. 21): Lantra.
- Lantra. (2009), *A Skills Assessment for the Environment and Land-based Sector UK report*. Warwick: Lantra.
- Lantra, Defra, BPEX, NPA and Agskills. (2006), *From Sustainability to Sustained Ability* (1st ed., pp. 33): Lantra.
- Lantra, NFU, Landex and Longthorpe, R. (2010), *Towards a New Professionalism. The Skills Strategy for agriculture and horticulture*. London: Lantra, NFU. Landex.
- Lave, J. and Wenger, E. (1991), *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leitch, S. (2006), *Prosperity for all in the global economy - world class skills* (Final report) (pp. 154): DfES.
- Lester, S. (1999), *Vocational Qualifications in land-based and related industries: uptake, progression, obstacles and opportunities*: LANTRA.
- Lester, S. (1999), 'Vocational Qualifications in Practice and Principle: lessons from Agriculture'. *Research in Post-Compulsory Education*, 4 (1), 23-38.
- Loudon, J. (1807), *An Immediate and Effectual Mode of Raising the Rental of the Landed Property of England, &c., by a Scotch Farmer, now farming in Middlesex*.
- Loudon, J. (1809), (Pamphlet) *The Utility of Agricultural Knowledge to the Sons of the Landed Proprietors of Great Britain, and to Young Men intended for Estate Agents; illustrated by what has taken place in Scotland. With an Account of an Institution formed for Agricultural Pupils in Oxfordshire. By a Scotch Farmer and Land-Agent resident in that country*.
- LSC. (2007), *College Funding*. (Learning and Skills Council):LSC.
- LSC and Centre.for.Education.and.Industry. (2003), *An Evaluation of Mergers in the Further Education Sector: 1996-2000*. Warwick: LSC and University of Warwick.
- LSC and Experian. (2009), *Identifying sectors with prospects for expanding the number of Apprenticeships - Final Report*. Coventry: LSC and Experian.
- Lucas, N. (2004), *Teaching in further education (Bedford way papers)*. London: Institute of Education.



- MacNaughton, G., Rolfe, S. A. and Siraj-Blatchford, I. (2001), *Doing Early Childhood Research*. Buckingham: Open University Press.
- MAF. (1919), MAF Circular to LEAs regarding Agricultural Education (PRO/MAF/33/59 FileTE942/1922). In Ministry of Agriculture (ed):MAF.
- MAF. (1938), *Journal of the Ministry of Agriculture*, 12, 248.
- MAF. (1945), Report of the Committee on Post-War Agricultural Education in England and Wales Cmnd 6433 (Luxmoore report) (Vol. 42): HMSO London.
- MAF. (1946), Report of the Committee on Higher Agricultural Education in England and Wales (Loveday report). In MAF (ed):HMSO.
- MAF. (1947), Interim Report on Agricultural and Horticultural Institutes (Loveday report): HMSO London.
- MAFF. (1947), Agriculture Act:HMSO London.
- MAFF. (1949), *Interim Report on the Provision of Part Time Instruction by Local Education Authorities for Agriculturalists Horticulturalists and Domestic producers (Loveday report)*.London: HMSO.
- MAFF. (1958), Report of the Committee on Further Education for Agriculture Provided by Local Education Authorities, Cmnd 614 (De La Warr report): HMSO, London.
- Mason, J. (2002), *Qualitative Researching*. London: Sage.
- McNally, S. (2001), 'Farm Diversification in England and Wales - what can we learn from the farm business survey'. *Journal of Rural Studies*, 17, 247-257.
- Merriam, S. B. (1988), *Case study research in Education. A qualitative approach*. San Francisco, California: Jossey-Bass Inc Publishers.
- Meyer, H.-D. (2002), 'From "loose coupling" to "tight management"? Making sense of the changing landscape in management and organization theory'. *Journal of Education Administration*, 40 (6), 515-520.
- Miles, M. B. and Huberman, A. M. (1984), 'Drawing Valid Meaning from Qualitative Data: Towards a Shared Craft '. *Educational Researcher*, 13 (5), 20-30.
- Miles, M. B. and Huberman, A. M. (1994), *Qualitative Data Analysis: A Sourcebook of New Methods*. (2nd ed.). Newbury Park, C.A.: Sage.
- Mingay, G. E. (1990), *A Social History of the English Countryside*. London: Routledge.

- MOE. (1960), National Advisory Council on Education for Industry and Commerce - Advisory sub committee on Further Education for Agriculture (Lampard Vachell, 1st Report) (pp. 15): HMSO London.
- MOE. (1961), National Advisory Council on Education for Industry and Commerce - Advisory sub committee on Further Education for Agriculture (Lampard Vachell, 2nd Report) pp 27: HMSO London.
- MOE and DES. (1974), *Ministry of Agriculture and DES: Further Education Branch: Agricultural Education and Research*. London: National Archives.
- Moore, I. (1971), 'Agricultural Education - a personal view'. *Journal of the Royal Agricultural Society of England*.
- MSC and CGTEA. (1983), *YTS in Agriculture and Horticulture. Managing Agent's manual*. Sheffield, Beckenham Kent: Manpower Services Commission and Consultative Group for Education and Training in Agriculture.
- Munn, P. (1993), *Parents and schools: Customers, Managers or Partners*. London: Routledge.
- Myers, C. and Jones, T. B. (1993), *Promoting Active Learning Strategies for the college classroom*. San Fransisco: Jossey-Bass Inc.
- Newby, H. (1977), *The Deferential Worker - A Study of Farm Workers in East Anglia*: Harmondsworth, Penguin.
- Newby, H., Bell, C., Rose, D. and Saunders, P. (1978), *Property, Paternalism and Power- Class and Control in Rural England*. London: Hutchison.
- Nijhof, W. J. and Brandsma, J. (1999), *Bridging the Skills Gap between Work and Education*. (1st ed.). Dordrecht: Kluwer Academic Publishers.
- Nijhof, W. J. and Streumer, J. N. (1998), *Key Qualifications in Work and Education*. Dordrecht: Kluwer Academic Publishers.
- Norman, L. (1999), 'Whither Agricultural Education? ' *Journal of the Royal Agricultural Society of England*, 160, 158-166.
- O'Leary, Z. (2004), *The essential guide to doing research*. London: Sage publications.
- Ofsted. (2008), *Identifying good practice: a survey of college provision in agriculture, horticulture and animal care*: London, HMSO.
- Orwin, C. S. and Whetham, E. H. (1971), *History of British Agriculture 1846-1914*. Newton Abbot: David and Charles.
- Paget. (1887), *Paget Commission Report*. In *Education* (ed).

- Patton, M. Q. (1990), *Qualitative Evaluation and Research Methods*. (2nd ed.). London: Sage Publications.
- Payne, J. (2008), 'Sector skills councils and employer engagement - delivering the 'employer-led' skills agenda in England'. *Journal of Education and Work*, 21 (2), 93 - 113.
- Payne, J. (2010), *Skill Utilisation: Towards a Measurement and Evaluation Framework*. Cardiff: SKOPE, Cardiff University.
- Payne, L. (2008), *The Evidence base on College Size and Mergers in the Further Education Sector*. London: DIUS research report 08 19.
- Peberdy, M. A. (1978), *Into Work: A Decision-Making Approach to Young People Entering Employment in the Agricultural Industry*. Unpublished PhD thesis. University of Reading, Reading.
- Pemberton, H. (1964), *The Industrial Training Act*: HMSO.
- Piggott, I. (2010), 'Attracting the young is critical to the future of farming'. *Farmers Weekly* (16.04.10), pp. 30.
- Pring, R. (2004), 'The Skills revolution'. *Oxford Review of Education*, 30 (1), 105-116.
- Privy Council Office. (1887), *Departmental Commission on Agricultural and Dairy Schools*. London: HMSO (Paget report).
- Raggatt, P. C. M. and Williams, S. (1999), *Government, Markets and Vocational Qualifications. An Anatomy of Policy*. (1st ed.). London: Falmer Press, Taylor & Francis Group.
- Randle, K. and Brady, N. (1997), 'Managerialism and Professionalism in the 'Cinderella Service' '. *Journal of Vocational Education and Training*, 49 (1), 121-139.
- Rees, G., Williamson, H. and Winckler, V. (1989), 'The 'new vocationalism': Further education and local labour markets'. *Journal of Education Policy*, 4 (3), 227 - 244.
- Reichheld, F. F. (1993), 'Loyalty Based Management ' . *Harvard Business Review*, 71 (2), 64-73.
- Reichheld, F. F. and Sasser, W. E. (1990), 'Zero Defections: Quality comes to Services ' . *Harvard Business Review*, September - October, 105 -111.
- Richards, S. (1994), *Wye College and its world: a centenary history*. Ashford Kent: Wye College Press.

- Robinson, B. (2010), 'I want to be a farmer - and I'm not joking'. *Farmers Weekly* (30.04.10), pp. 26.
- Robson, C. (2002), *Real World Research*. (2nd ed.). Oxford: Blackwell Publishers.
- Robson, J. B., Bill & Larkin, Shirley. (2004), 'Adding Value: investigating the discourse of professionalism adopted by vocational teachers in further education colleges'. *Journal of Education and Work*, 17 (2), 183 - 195.
- Russell, K. (1991), *The Principles of Dairy Farming*. (11th ed.). London: Farming Press.
- Samuelson. (1889), Technical Instruction Act (Vol. 59 c 562, 17th June 1898): Hansard.
- Schon, D. (1971), *Beyond the Stable State*. London: Temple Smith.
- Schwandt, T. A. (1994), *Constructivist, Interpretivist Approaches to Human Enquiry*. Thousand Oaks California: Sage Publications Ltd.
- Seabrook, M. F. (1972), 'A Study to Determine the Influence of the Herdsman's Personality on Milk Yield '. *Journal of Agricultural Labour*, 1, 44-59.
- Seabrook, M. F. (1984), 'The Psychological Interaction between the Stockman and his Animals and its Influence on Performance of Pigs and Dairy Cows'. *The Veterinary Record*, 115, 84-87.
- Shah, H. and Goss, S. (2007), *Democracy and the Public Realm*. London: Lawrence and Wishart.
- Shain, F. (1999), Changing notions of teacher professionalism in the Further Education sector, *British Educational Research Association Annual Conference*. Queens University Belfast, Northern Ireland: BERA.
- Sheppy, P. (2007), 'Our Founding Fathers'. *Journal of the Royal Agricultural Society of England*, 168.
- Simmons, R. (2008), 'Golden Years? Further education colleges under local authority control'. *Journal of Further and Higher Education*, 32 (4), 359 - 371.
- Smith, J. (1989), *Curriculum Development in Agricultural Education*. Bristol: The Further Education Staff College, Coombe Lodge.
- Smithers, A. and Robinson, P. (2000), *Further Education Re-Formed*. London and New York: Falmer Press.
- Soper, M. H. R. (1995), *Years of Change*. Ipswich, UK: Farming Press.
- Spedding, A. (2009), *New Blood in Agriculture. Attracting the best young people to agriculture*. Stoneleigh Warwickshire: RASE.

- Stake, R. E. (1998), 'Case Studies.' In N. Denzin and Y. Lincoln (eds), *Strategies of Qualitative Inquiry* (pp. 86-109). London: Sage Publishers.
- Stanton, G. and Fletcher, M. (2006), *14-19 Institutional Arrangements in England: a research perspective on collaboration, competition and patterns of post-16 provision*: Nuffield Institute.
- Strauss, A. and Corbin, J. (1998), *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. (2nd ed.). Thousand Oaks, California: Sage Publications.
- Swan, R. (1986), 'Two decades of Organised Farm Training'. *Journal of the Royal Agricultural Society of England*, 147, 19 - 25.
- Thompson, L. (2006), 'Agricultural education in the interwar years (chapter 4) ', *The English Countryside Between the Wars: Regeneration or Decline?* Woodbridge: The Boydell Press.
- UKCES. (2010), *Ambition 2010: World Class Skills and Jobs for the UK*. London and Wath-on-Deane: UK Commissioning for Employment and Skills.
- Unwin, L. (2004), 'Growing beans with Thoreau: rescuing skills and vocational education from the UK's deficit approach'. *Oxford Review of Education*, 30 (1), 147-160.
- Unwin, L. (2007, Tuesday 8th May 2007), 'Why don't we question the Leitch report more?' *The Guardian 8th May 2007*.
- Unwin, L., Felstead, A., Fuller, A., Bishop, D., Lee, T., Jewson, N. and Butler, P. (2007), 'Looking inside the Russian doll: the interconnections between context, learning and pedagogy in the workplace'. *Pedagogy, Culture and Society*, 15 (3), 333-348.
- Walsall Leather Museum. (2006), Glossary of Saddlery terms.
- Walton, J. (1992), 'Making a theoretical case'. In C. C. Ragin and H. S. Becker (eds), *What is a Case? Exploring the foundations of social enquiry*. (pp. 121-137). Cambridge: Cambridge University Press.
- White, P. (2007), 'Choosing at School: A Model of Decision Making Behaviour Within Compulsory Education '. *Evaluation and Research in Education*, 20 (1), 32 - 53.
- Wilson, B. (1979), 'Exploration of the Usefulness of Case Study Evaluation '. *Evaluation Quarterly*, 3, 446-459.

- Wilson, G. A. (2001), 'From Productivism to Post-Productivism and Back Again? Exploring the (Un)changed Nature and Mental Landscapes of European Agriculture '. *Transactions of the Institute British Geographers*, 26 (1), 77-102.
- Wodak, R. and Meyer, M. (2009), *Methods of Critical Discourse Analysis*. London: Sage.
- Wolf, A. (2007), 'Round and Round the Houses: the Leitch Review of Skills'. *Local Economy*, 22 (2), 111-117.
- Wolf, A. (2009), *An Adult Approach to FE*. London: Institute of Economic Affairs.
- Wolf, A. (2010), *How to shift power to learners: Encouraging FE dynamism, replacing centralised procurement*. London: Centre for Innovation of Learning - Learning Skills Network.
- Woodward, D. (1980), 'The Background to the Statute of Artificers: The Genesis of Labour Policy, 1558 - 63 '. *The Economic History Review*, 33 (1), 32 - 44.
- Yeomans, D. (1996), *Constructing vocational education: from TVEI to GNVQ*. Leeds: Post-14 Research Group, School of Education, University of Leeds.
- Yin, R. K. (2003), *Case Study Research: Design and Methods*. (3rd ed.). (Vol. 5). London: SAGE Publications.

**Appendices**

1. Analysis of land based college from prospectuses and web materials	172
2. Questions used for semi structured interviews	174
3. Coding framework from data analysis	176
4. Example of part of an interview transcript with Key Informant K5	180

County	Status: Merged	Partner with HEI	Number of curriculum areas	2004-09 Ofsted results*	Predominant Sector- if any	2008/09 Income Total	Farm Size (ha)	Nos of Sites	%Ethnic Minority
Bedfordshire	Merged		12	3	Equine and agriculture		2000	2	
Berkshire	Independent	yes	10	3	Agriculture	£4,966,447		1	
Cheshire	Independent	yes	15	1	Agriculture and mechanisation	£6,825,214		3	1
Cornwall	Merged		13	n/a	Environment	£32,428,000		7	
Derbyshire	Merged		11	n/a	Animal Care	£6,452,143	250	2	
Devon	Independent	yes	17	2	Horticulture	£4,318,000	200	3	less 1
Dorset	Independent	yes	13	2		£3,999,492	375	2	
East Sussex	Independent	yes	15	2	Agriculture	£4,333,081		3	2
East Yorks	Independent	yes	16	1		£6,470,051	409	4	less 1
Essex	Independent	yes	14	3	Equine and Horticulture	£6,539,285		3	
Gloucestershire	Independent	yes	11	2		£7,810,690			2
Hampshire	Independent	yes	13	2	Blacksmithing	£9,658,887		3	2
Herefordshire	Merged		10	2	Equine	£2,742,919		2	1.1
Hertfordshire	Merged		13	2		£17,807,093		6	12
Kent	Merged		7	2		£4,468,363	256		4
Lancashire	Merged		15	3	Countryside/Agriculture	£2,351,451	600	4	
Leicestershire	Merged		13	3	Equine/Animal care	£6,411,548		2	3.2
Lincolnshire	Merged		17	n/a		£2,527,205		3	
North London	Independent	yes	12	2	Horticulture/Saddlery	£5,339,331	92.5	8	
Norfolk	Merged		15	2		£4,028,147			
Northampton	Independent	yes	16	1	Animal care/Equine	£10,777,754	600+	5	6
Northumberland	Independent	yes	9	2	Livestock/Forestry	£9,612,374	256	2	
Nottingham	Merged		14	3	Countryside/Environment	£1,446,000	440		
Shropshire	Merged		11	2		£7,545,665		2	
Somerset	Merged		7	3		£20,367,243			
Staffordshire	Independent	yes	17	2		£4,067,159			1
Suffolk	Independent	yes	13	2	Horticulture/Art	£8,351,657	15	2	
Surrey	Independent	yes	6	n/a		£21,038,777			
Warwickshire	Merged		17	n/a	Equine	£3,717,452		6	
Warwickshire (Persore)	Merged		16	1	Horticulture/Engineering	n/a			
West Sussex	Merged		10	2		£23,797,040		4	
Wiltshire	Merged		9	3	Agriculture/Horticulture	£16,135,309		2	
Yorkshire	Independent	yes	12	2	Agriculture/animal care	£4,999,744	404	5	2
Independent: merged	16			*1-outstanding					
	16			*2=Good					
HE partnerships		16		*3=satisfactory					



County	Nos. teaching staff	Total FTE	Nos of students					College				OFSTED report available
			FT	%Adult Approx 40%	PT	HE	% Male	Apprentices /WBL	History Available	Prospectus obtained		
Bedfordshire	29							43		yes	yes	yes
Berkshire		5000	4300	40					40	yes	yes	yes
Cheshire	111	3216	1000		900	350		57	500	yes	yes	yes
Cornwall								45			no	yes
Derbyshire												yes
Devon		4628	850	36.5	814	612		42	189	yes	yes	yes
Dorset				majority							yes	yes
East Sussex	54	2909	1600	66				45		yes	no	yes
East Yorks		2389		73		2			222	yes	yes	yes
Essex			924		1172			62			yes	yes
Gloucestershire		1100									yes	yes
Hampshire		3800	1200	majority				49		yes	yes	yes
Herefordshire			1128	40		7016		54			no	no
Hertfordshire		17,275		38	83%					no	yes	yes
Kent	54	1673						40	50	no	yes	yes
Lancashire			700								yes	no
Leicestershire		9117	690	91					240		yes	yes
Lincolnshire			2383	majority				59	95	yes	yes	yes
North London		1076		76				48			yes	yes
Norfolk		700		60					120		yes	yes
Northampton	132		5551	majority				58		yes	yes	yes
Northumberland		1673								yes	yes	yes
Nottingham										yes	yes	yes
Shropshire								54			yes	no
Somerset										yes	yes	no
Staffordshire											yes	yes
Suffolk	63		729	75	1713			41	180		yes	yes
Surrey			889		1880			50		yes	yes	yes
Warwickshire											yes	yes
Warwickshire (Pershore)											yes	no
West Sussex		3600								yes	yes	no
Wiltshire		355						45			yes	yes
Yorkshire	126	3877	713	22				43		yes	yes	yes

## **Appendix 2 : Outline questions used for semi-structured interviews**

**Introduction** – thanks for agreeing to take part, explain the purpose of the interview, confirm OK to record, and assure anonymity

**Part 1 Background information about the interviewee eg qualifications, years teaching, current job role and previous experience**

### **Part 2 Changes facing the industry and LBC**

**a) Changes and trends within the land based industry over say the last 50 years** What have been the major and most significant changes? What has prompted the changes? Why were changes necessary? Good thing? Bad thing? Main reasons for these? What has prompted change? Government led? Industry led? Student led? College led?

How have colleges responded to changes within the industry? How has change impacted on you?

**For the industry:**

**i) Externally imposed change:** What were these? What was the influence?

**ii) Internally (and locally) imposed change** What internal changes have occurred in the industry? Locally and on each farm? Why were they necessary? How have they impacted on you? College? students?

**b) Changes and trends within the land based colleges over say the last 20 to 30 years - what have these been?**

**For the LBCs:**

**i) Externally imposed change:** What were these? How have they impacted on LBCs? In what ways does the current emphasis/government policies on skills affect LBCs?

**ii) Internally imposed change** What internal changes have occurred in your college? Why were they necessary? How have they affected you?

**How have the colleges responded to the challenges they faced?**

**i) changes in the curriculum areas – what? Impact?**

ii) what changes in the range of **qualifications** offered? main reasons for this? Impact?

iii) **Teaching & Learning - Pedagogy** :What and Why has change, if any taken place? what use is made of the college farm as a teaching resource, especially in relation to the approach towards teaching/delivery?

iv) **Mergers/Partnerships with others**: what links? How many links does your college have?

What are the reasons for colleges entering into partnership with others?

What are important factors in any merger/partnership?

How has change impacted on you/your college/colleagues?

### **Part 3 Future training/educational needs in the sector:**

Do current training arrangements meet the industry's needs? Reason for response?

What are current/future impacts on ..say the industry that might influence further change?

What are the gaps in the current provision? Reason for response?

In the future will there be a skills shortage? Evidence for your response?

Who are the current students? Backgrounds? Typical student profile?

How are future farmer's sons/daughters/farm workers being trained?

Is there a difference between the training of workers, and farmers' sons/daughters?

For whom is the training and education in your college designed for?

Now? 10 years ago?

Has this altered?

Main reasons ?

How would you like organisations such as awarding bodies, Lantra or government to support the land based colleges in the future? If you could choose 3 improvements what would they be?

**Any other comments that you have on this topic?**

**Thank you very much for taking part – I will send copy of transcript for approval asap**

### Appendix 3: Coding framework of findings from interviews

Code	Themes and sub themes	Number of statements (18 max)
1.0	<b>Theme: Colleges have changed – reasons for this:</b> <b>Industry driven changes:</b> <ul style="list-style-type: none"> <li>Slump – industry in a poor state –main reason for change</li> <li>Diversification to make more sustainable</li> <li>Public critical and not supportive</li> <li>Agriculture has an ageing work force</li> <li>Students not choosing agriculture as a career</li> <li>Students from farming families not wanting to continue to farm</li> </ul> <b>Government driven changes:</b> <ul style="list-style-type: none"> <li>Incorporation introduced</li> <li>Led to increased freedom and entrepreneurial approach for LBC</li> <li>Led to LBCs having more independence</li> <li>Funding regime changed - less money for LBC</li> <li>Ofsted changed improved teaching and learning</li> <li>Failure in the past to provide progression routes for students</li> </ul> <b>Choices for the colleges aim for:</b> <ul style="list-style-type: none"> <li>College growth</li> <li>diversification</li> <li>amalgamate with FEC or HEI</li> </ul>	16 16 12 8 (agriculturalists) 9 10  12 9 12 10 8 7  14 11 8
2.0	<b>Theme: What were the changes?</b> <b>Curricular</b> <ul style="list-style-type: none"> <li>Diversify and broaden</li> <li>Leading to different students</li> <li>Different staff</li> <li>Changes to the qualifications on offer</li> <li>Curriculum shift inevitable – away from agriculture</li> <li>Core and Key skills introduced – important addition</li> <li>Staff grumbled about the introduction of key and core skills</li> <li>New Diploma Environment and land based introduced</li> <li>Contact time reduced from 30 to about 16 to 20</li> <li>Less time for teaching practical skills</li> </ul> <b>Funding</b> <ul style="list-style-type: none"> <li>National formula which is less favourable for LBC</li> <li>Importance of brand name</li> <li>Loss of 'agriculture' in college name</li> <li>Mergers with other institutions (FEC and HEI) to make more viable</li> </ul>	16 13 5 12 8 9 5 9 7 7  11 10 10 9
	<ul style="list-style-type: none"> <li>More HE being carried out in LB increasing student</li> </ul>	7

	numbers	
	<b>Quality and quantity of provision –</b> <ul style="list-style-type: none"> <li>• Landex to help drive up quality 11</li> <li>• Awarding bodies responsible for improved quality 5</li> <li>• New inspection process improved quality in LBCs 8</li> <li>• Student experience during the first two years of a programme poorer 6</li> <li>• Staff as practitioners rather than teachers 12</li> <li>• Staff becoming education professionals and participating in teacher training 6</li> <li>• Involvement with Lantra minimal 6</li> <li>• Critical of Lantra staff's experience 5</li> </ul> <b>People involved with the LBCs –</b> <ul style="list-style-type: none"> <li>• staff and customers not now only from agriculture 6</li> <li>• student registrations reached an all time low in 1980s 12</li> <li>• Source of students: shift from rural to urban background 8</li> </ul>	
3.0	<b>Theme: Consequences of change:</b> <ul style="list-style-type: none"> <li>• Mergers with FEC or HEI who were attracted by facilities and atmosphere 11</li> <li>• Loss of culture during merger as identity 'lost' 12</li> <li>• Colleges merged if not viable 9</li> <li>• Bigger colleges emerged from mergers and from staying independent 11</li> <li>• Partnerships created/increased 7</li> <li>• Few remaining specialist land based colleges but those left are larger 12</li> <li>• student numbers increased overall 14</li> <li>• Most recruitment activity is aimed at local students 9</li> <li>• Parents attend interviews and Open days and support children 8</li> <li>• More HE students 7</li> <li>• Animal care staff most innovative in the classroom as big classes 7</li> <li>• Better progression routes for students 16</li> <li>• Atmosphere in colleges tense 7</li> <li>• The aim of most of the colleges was primarily to remain as an agricultural college 5</li> <li>• HR department use of or established 5</li> <li>• Problems created – poor student experience in first years of new programme 6</li> <li>• Changed and much broader curriculum-land related eg equine, animal care and non land-based eg sport, public services 16</li> <li>• New curriculum introduced without sufficient marker research 3</li> </ul>	

	<ul style="list-style-type: none"> <li>• Smaller classes, different approaches</li> <li>• Class size dropped from 80+ to 15 to 20</li> <li>• New types of students in LBCs</li> <li>• Shift away from pre-college and day release</li> <li>• Urban from rural background shift</li> <li>• Wider range of students and staff</li> <li>• No differences perceived between training for farmers' sons and daughters, and that provided for farm worker</li> <li>• Young people want to earn as soon as they leave school</li> <li>• Many attend LBC from 14 via school links programmes</li> <li>• Shift of age at entry from 18 to 14 – concerns on this</li> <li>• Teaching and learning – less practical work carried out on the estates and more activity now in the classroom</li> <li>• Traditional departments replaced with faculties</li> <li>• Faculties introduced – some sidelining</li> <li>• New staff with minimal teaching experience</li> <li>• Qualifications changed</li> <li>• Only BHS/practical qualifications available in early days of equine in LBC</li> <li>• Number of agriculture students now increasing</li> <li>• Careers officers poor at promoting LBC/discourage new students</li> <li>• FE is poor relation in education</li> <li>• LBCs even worse off than general FECs</li> <li>• Teaching staff showed minimal interest in government educational policy, being more interested in industry related policy and quality teaching</li> <li>• Careers officers poor level of knowledge in LB sector</li> </ul>	7 11 11 5 8 6 6  7 7 9  8 5 4 4 14 5  5 5  6 6 9  5
4.0	<b>Theme: Opportunities created</b> <ul style="list-style-type: none"> <li>• Freedom following incorporation</li> <li>• Entrepreneurial activity encouraged</li> <li>• Colleges given scope to increase in size</li> <li>• More links with industry organisations helping make decisions in LBC</li> <li>• Teaching standards could be improved through LSIS, peer review etc</li> <li>• Farmers don't need qualifications to start farming</li> <li>• Funding available for mergers</li> </ul>	9 9 11 8  7  3 3
5.0	<b>Theme: Problems</b> <ul style="list-style-type: none"> <li>• Mixing of cultures in mergers</li> <li>• Loss of identity or fear of this on merging</li> <li>• Colleges wanted to remain as an agricultural college</li> </ul>	14 12 5

	<ul style="list-style-type: none"> <li>• Differences in approach by new college/HEI</li> <li>• Some resistance as changes began and agriculture reduced but an acceptance now</li> <li>• FECs and schools delivering LB subjects – a threat</li> <li>• Who representing LB education for LBCs?</li> <li>• Awarding Bodies enabled/allowing FECs to deliver LB subjects</li> <li>• Insufficient specialist resources in LBC when eg equine and Animal care first introduced</li> <li>• Insufficient jobs for animal care students</li> <li>• Reduced standards arising from limited teaching experience in FECs and schools to teach LB subjects</li> <li>• Schools not got appropriate resources to deliver LB subjects</li> </ul>	8 8 9 4 6 4 6 9 5
6.0	<b>Theme: Future changes</b> <ul style="list-style-type: none"> <li>• Short courses of specialist nature</li> <li>• More courses for leisure</li> <li>• A need to attract new students to the industry starting with the new Diploma</li> <li>• Concerns over lack of school resources to deliver Diploma</li> <li>• More links with schools</li> <li>• More students attend LBCs via school links</li> <li>• Development of local training groups</li> <li>• From September 09 more students of agriculture recruited</li> </ul>	8 11 9 5 10 7 6 5

## Appendix 4 – Example Transcript: Key Informant K5

14.08.09 @11.00am for 1hr 20 mins

(LB =interviewer, K5= interviewee)

Main transcript	Notes
<p>LB: Brief introduction and thanks for taking part giving up time etc</p> <p>K5: no problem delighted to help out etc etc</p> <p>LB: Why have LB colleges changed over last 20 30 years</p> <p>K5: Incorporation is key, I have given this a little bit of thought before hand</p> <p>LB smashing! - thank you</p> <p>K5: Key factors are the changes in the industries we serve, incorporation, mergers ( a big issue for LBCs); changes in people we serve; pause..., issues of quality and quantity. Main 5 factors probably be those</p> <p>I will explain what I mean by these:</p> <p>LB: thank you, would you like to start with the industry changes?</p> <p>K5: yes <b>industry changes</b> – all industry does change, nature of life and business - considerable in farming and ongoing, about financial and economic struggles, including CAP reforms and all of that, led farmers to thought of diversification, LBC in down guard for industry and set good example for industry to follow LC and farming to follow LBCs diversified their farms and curriculum offer as declined and animal care, equine and met other industry needs dealing with new industry needs more environmentally aware resources, not too diff to convert to those working in equine and countryside management course grew and animal care diversification from farming base, and for horticulture LBCs went from parks and gardens stuff to garden design which became more popular and golf to sports turf LBC moved from changes in industry to diversification</p> <p>LB: are the industry changes the main factor do you think?</p> <p>K5: yes but <b>incorporation</b> was also very important!! -changes gave us (LBCs) greater <b>freedoms</b> to the colleges than we ever had when we were part of LA control, greater freedoms enabled 1) more finely tuned responsibility and responsiveness to markets we were serving 2 and it unleashed an era and a greater sense of entrepreneurialism. Clearly when LA looking over shoulder it felt very different. Forced to become more business-like and more competitive between colleges Margaret Thatcher. Cosiness of LA working s disappeared very rapidly and funding national funding FEFC helped to overcome this and removed artificial barriers</p> <p>Pre and post incorp was jolly good thing. And changes were for the better</p> <p>LB: colleges really benefitted from incorporation via freedom obtained?</p> <p>K5: absolutely – and eventually (he grins!)</p> <p>LB: what would be your next factor?</p> <p>K5: I think college mergers are. Flip side of coin painted rosy picture, some colleges not able to respond to the changing scene got selves into awful financial difficulties and as consequence of being small to begin with if weren't able to diversify and grow under</p>	



funding formula became very vulnerable. When I look from a higher level, and with hindsight.

LB: what do you mean by 'higher level'?

K5: I was a principal of a big college and now the CEO of a large organisation linked to Ag Ed. So from apposition of seniority and experience – and now with hindsight

LB: please continue

K5: when I started out there were students in 30 to 40 LBC and now down by half in terms of specialist independent LBC. This doesn't mean the others have disappeared but they have merger with general FECS and many became a significant sector in that sort of college and good that they continue they are thriving in that sort of arrangement and pleased to say they are active part of Landex drive in that they still that are and delivering do that under the umbrella of larger institutions, mergers I make no value judgements about that it is just a statement of fact. Mergers clearly have been one of the causes of change

LB: that is very interesting.

LB: what are the pluses and minuses of mergers?

K5: the benefits are of the generic services that can be supplied by the large college being merged with eg HR and finance, the downsides are sometimes to do with loss of identity of the LBC all that business of culture that FECs don't always understand, or try to understand

LB: culture-are you able to explain that for me please?

K5: -laughs –I think you understand the LBCs!! Very focussed, small group of specialist subjects being taught and learned all associated with agriculture and the countryside, all a bit 'earthy' for some!! The LBCs are small in comparison with most FECs and often quite remotely placed so transport is sometimes difficult and a community spirit develops on the campus between students and staff. Students are residential and they need to be to do their farm duties

LB: Any other causes of change that strike you?

K5: yes critically there have been big changes in people: one of the things that strikes me - if go back 30 years age profile changed, the age profile was much different, clearly and got much younger. It is interesting to think and reflect why this is the case, linked to changes in industry if we stay with the farming provision the norm was for them to leave school at 16 and go onto farm for 1 or 2 years 2 years was encouraged perhaps doing some day release and with a clear aim of coming to colleges after that to do a full time course Many of the courses had a sandwich element in the middle of them spend year on FT course and back to college to finish pattern and one industry keen on. Support for this weakened and more particularly young people wanted to earn when they left school and finish their education funding mechanisms drove us towards this kind of approach age profile shifted 19-20 to 15 16 and more and more involved with schools all changes age profile and drives it down. Opposite of that are career changes people coming in their 40s and valuable mix some courses garden designers etc have changed the nature and fell of the

colleges

LB: you have mentioned 4 factors so far Just to recap:

- Changes in the industry
- Incorporation and resulting freedoms
- College mergers
- People the LBCs serve
- So any others that you consider to be important?

K5: Yes - Issues around **quality and quantity** are another factor responsible for changes in LBC sector. An anecdote in 1987 when I started at my college there were 200 FT students 1500 PT students, when left after 17 years 400 FT and 3000 PT and retired for 5 years and my successor will no doubt tell you that they have increased again. R\*\*\* (name of his last college) is not an exception as lots have grown exponentially on the back of this and all good news. Numbers have gone up and subjects taught have changed, meaning lots of changes all the way round. The agriculturalists weren't always happy with this BUT in order to keep afloat we have to diversify

LB: you mentioned quality, could you expand on this please?

K5: yes- Quality has meant a tremendous improvement in quality of learner experience and right in terms of what the industry wants. Industry might say that quality not as good as it was 20 years ago students not as well prepared for work, and that their ability to do the job is less now, but what is different now? Industry and LBCs responding to pressure from government, funding agencies and ABs, qualifications, inspectorate add to general professionalism of lecturers and the way LBCs conduct their business (because it is a business now) which has 'improved' over the years, and the upshot is that young people are now more rounded and probably more educated and less vocational and the way in which curriculum is better differentiated to learners needs, with things such as KS FS addressed in more systematic and businesslike way, 30 years ago probably not many computers in colleges, they are now doing more ICT and part of change of quality of change for learners.

LB: In what ways has Landex been involved in all of this would you say?

K5: Landex changed as an organisation helping LBCs to drive up quality. The previous organisation (NAPAE0) did not have quality as high up its agenda at all and lots of time was spent agonising over funding and changes we have touched on in this conversation, and not on the quality of the learner experience – what a terrible confession to make!!

Continued.....